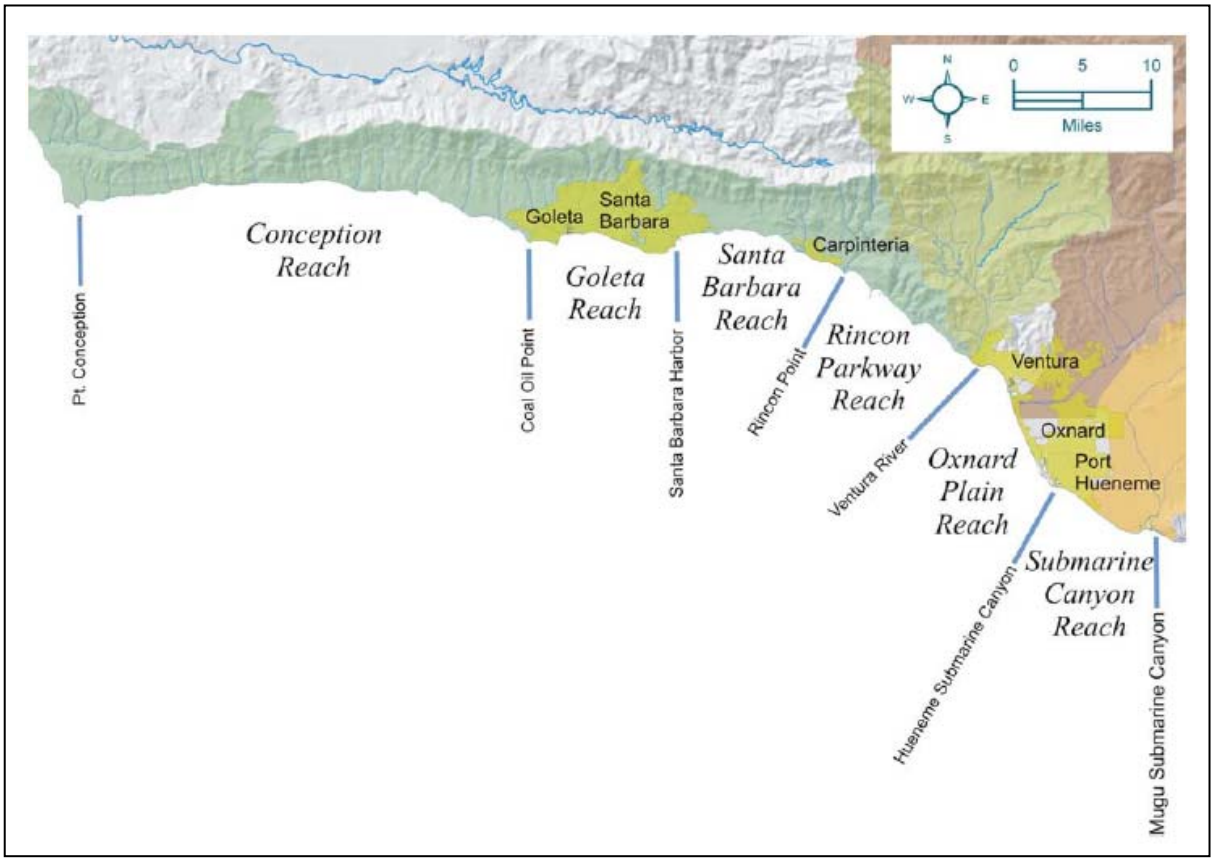
# Initial Study
## Coastal Regional Sediment Management Plan
## March 1, 2010





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# 1.0 PROJECT DESCRIPTION

## 1.1 Introduction

Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) is a California Joint Powers agency established in 1986 to address coastal erosion, beach nourishment and clean oceans within the Central California Coast from Point Conception to Point Mugu (Figure 1-1). (Figures are provided in Section 10.0 (A) at the end of this document.) BEACON is made up of representatives from the counties of Santa Barbara and Ventura and the coastal cities of Goleta, Santa Barbara, Carpinteria, Ventura, Oxnard and Port Hueneme.

This Initial Study (IS) describes the proposed actions and identifies the potential effects of the construction, operation, and maintenance of several beach restoration/enhancement projects that were identified in the January 2009 BEACON Coastal Regional Sediment Management Plan (CRSMP) (BEACON, 2009). The proposed actions comprise several project components which, although not yet finally designed, are geographically related and similar in their overall purpose: to preserve, restore, or enhance sand beaches within BEACON's jurisdictional area.

This IS has been prepared in accordance with CEQA Guidelines Section 15063(c). The purpose of an IS is to provide a preliminary analysis of a proposed action to determine whether a Negative Declaration or an Environmental Impact Report (EIR) should be prepared. An IS also enables an applicant or Lead Agency to modify a project, mitigating adverse impacts in lieu of preparing an EIR, thereby potentially enabling the project to qualify for a Negative Declaration. The IS provides a factual basis for the Negative Declaration, or serves to focus an EIR on the significant effects of a project.

As lead agency under the CEQA guidelines, BEACON has decided that an EIR will be required to satisfy CEQA and, because the proposed actions are of a similar nature and are within the same region, that document with be a Programmatic EIR (PEIR). In addition to expanded analysis of appropriate issues, the PEIR will also provide an alternatives analysis and a cumulative impact assessment; the cumulative analysis will be based on a list of projects that BEACON will develop and that are within the same region as the proposed actions.

## 1.2 Project Objectives, Purpose, and Need

The purpose and objectives of the CRSMP is to provide BEACON with a comprehensive plan that addresses how to:

- conserve and restore the sediment resources along BEACON's jurisdictional coastline,
- reduce shoreline erosion and coastal storm damages,
- protect sensitive environmental resources,
- increase natural sediment supply to the coast,

- preserve and enhance beaches,
- improve water quality along the shoreline, and
- optimize the beneficial use of material dredged from ports, harbors, and other opportunistic sediment sources.

To achieve those objectives, the CRSMP identified a series of "activities" that include additional technical studies, improvements in internal management and external coordination, policy actions, and capital projects. This IS provides an initial assessment of the identified capital projects, which entail the construction of nearshore and onshore structures and facilities designed to enhance or preserve sand beach areas. Each capital project is located at a specific site along the BEACON coastline and is designed to achieve one or more of the listed CRSMP objectives. Figure 1-2 shows the general location of each capital project, details of which are discussed separately below.

In addition to the capital projects, BEACON is recommending that member counties and municipalities consider the implementation of an ordinance designed to provide a mechanism whereby obstructions to the natural transport of sediment to the coast as a result of upland development require mitigation. The ordinance is discussed further below and is intended to promote beach nourishment within the region. Should the ordinance be adopted by local cities and the counties of Ventura and Santa Barbara, it would have the potential to result in beneficial effects on beaches with respect to recreation, aesthetics, geology, safety and biology. Adverse effects (transportation, air quality, and noise) may be associated with the transport of available sediment from development projects to beach nourishment areas. However, it is assumed that such effects would result from the transport and disposal of the sediment at a non-beach location irrespective of such an ordinance. Additionally, these impacts would be considered in the environmental review of individual development projects. Due to these factors, and the speculative nature of what may be included in an Opportunistic Sand Ordinance that may be adopted by a given jurisdiction as well as the determination of which and how many jurisdictions may adopt such an ordinance, this aspect of the Project is not evaluated in further detail as part of this environmental review process.

## 1.3 Location

The project region is the portion of BEACON's shoreline area between the 100 foot (MLLW) isobath and 100 feet inshore of the mean high tide line (MHTL) extending from Point Conception in Santa Barbara County to Point Mugu in Ventura County. The anticipated location for each of the capital projects within this region is identified below and is shown in Figure 1-2.

## 1.4 Project Components

The 18 capital projects recommended in the CRSMP are listed below in Table 1-1.

**Table 1-1 Capital Projects from 2009 Coastal Regional Sediment Management Plan**

| Project Name | Probable Member Sponsor |
|---|---|
| Goleta County Beach* | County of Santa Barbara |
| Carpinteria City Beach* | City of Carpinteria |
| Oil Piers Section 227* | BEACON |
| Surfers Point Managed Retreat* | City of Ventura |
| Pierpont Beach Sand Management* | City of Ventura |
| Oxnard Shores Sand Management (1.4.1)** | City of Oxnard |
| Regional Sediment Management Stockpile and Processing Center (1.4.2) | ---- |
| Sand Retention Pilot Projects (1.4.3) | |
| • Arroyo Burro County Beach | County of Santa Barbara |
| • Butterfly Beach | City of Santa Barbara |
| • Summerland Beach | County of Santa Barbara |
| • Santa Claus Beach | County of Santa Barbara |
| • La Conchita Beach | County of Ventura |
| • North Rincon Parkway | County of Ventura |
| • South Rincon Parkway | California State Parks |
| West Hueneme Beach Renourishment Longevity Improvement (1.4.4) | City of Port Hueneme |
| North and South Rincon Parkway Shoreline Restoration (1.4.5) | County of Ventura |
| Sand Capture at Mugu Submarine Canyon (1.4.6) | BEACON |

*Projects included in Cumulative Analysis only
**Initial Study Section for Description of Project
Source: BEACON, 2009 (Table 3)

Five of the projects listed in Table 1-1 have either been permitted, have undergone, or are undergoing CEQA analysis and are therefore not appropriately included in the list of proposed actions to be assessed in this IS. Those projects are, however, included in the list of cumulative projects to be considered in the environmental documentation for this project. (The cumulative analysis will be presented in the PEIR). The remaining 13 capital projects comprise onshore and offshore developments and consist of sand management, sand handling, re-nourishment, or sand retention activities. Descriptions of the projects are provided below.

### 1.4.1 Oxnard Shores Sand Management Project

This is a sand management project intended to address the wind-blown sand issue that chronically affects certain areas within the region. This project consists of the installation and maintenance of series of “sand fences” and the mechanical removal of accumulated sand. It is designed to prevent sand from reaching inland roadways, residential properties and other improvements. By placing fences along specific areas of the beach, the wind-blown sand would be captured before it moves inland, and the captured sand would then be returned to the littoral system on a regular basis. A second aspect of the project is stabilization of the beach using plantings of dune grasses and other appropriate dune vegetation.

The location of this project is Oxnard Shores (Figure 1-3). The sand fencing plan at this site consists of the placement of two rows of standard 4-foot high wood or plastic-slat fencing spaced approximately 40 feet apart within two areas: a 100 foot-wide by 900 foot-long northern area at the foot of West 5th Street and a 100 foot-wide by 600 foot-long area seaward of Neptune Square (Figure 1-4). The fencing would be secured with replicate, 8 foot-long galvanized steel T-posts placed every 6 feet. The inland fence row would be located at least 30 feet seaward of Mandalay Road or the nearest development. Fencing would be spaced to allow for public access every 50 feet.

Manual construction of the fencing is expected, with the steel T-posts being driven into the sand with a sledge hammer or similar device. Approximately 10 personnel, including truck drivers to deliver the material, would be required to construct the fencing. Fence construction time is estimated at six weeks and is expected to be initiated within five years of the certification of this PEIR.

Periodic monitoring and maintenance of the project would be performed to ensure adequate function. Two to four times per year, when sand accumulates to the point where 1 to 2 feet of fence remains exposed, a small front end loader, small bulldozer, or similar equipment would be used to relocate the accumulated sand to the beach face. Each maintenance cycle would be expected to last from three to five days with up to 2,000 cubic yards (CY) of sand moved to the beach face. Sand fence material would be repaired and adjusted by hand labor as required. Two personnel, a front end loader operator and an assistant, would be needed during maintenance operations.

### 1.4.2 Regional Sediment Management Stockpile and Processing Center

The sediment stockpile and processing center would receive and process sediment that becomes available from inland sources and ultimately provide beach compatible sand to specified coastal locations. Construction of the facility would entail grading and leveling of the site and the construction and placement of structures and equipment. The size of the facility would need to be sufficient to provide space for sediment screening equipment, a 40 foot by 8 foot office trailer, and separate areas for receiving of sediment and storage of processed sand. A shed or garage to house the on-site front-end loader (expected to be a Caterpillar Series 900 or equivalent) that would be used to move the sediment to and from the trucks would also be required. Dedicated space should allow for ingress and egress of sediment delivery trucks, temporary storage for up to 3,000 CY of unprocessed sediment, and separate storage of approximately 16,000 CY of processed sand (Figure 1-5). The number of construction personnel and the number and type of construction equipment would be determined following final design.

Operations would consist of sediment delivery to the site by truck, temporary storage of the sediment, and mechanical screening to remove cobble, debris, and as much fine grained material as practical. The operational requirements of the plant may be controlled by restricting sediment deliveries to material that meets a minimum sand content percentage so that removal of the finer grained fraction would not be necessary. The sediment may also use blending techniques to process the material to achieve beach compatibility. Material with higher fine-grain sediment content could be amended with beach quality sand to lower silt and clay content

to acceptable limits for beach nourishment. Sand and finer-grained material would be temporarily stored onsite, and the sand would ultimately be transported to a beach for replenishment/nourishment. The sediment that is not suitable for beach placement would be exported by truck to areas for fill for construction projects or other uses. In addition to one or two office personnel, operations would require a mechanic, equipment maintenance/operator, and a loader operator. Maintenance activities would be limited to those necessary to maintain the on-site equipment and would be continuous but periodic throughout the life of the facility.

The currently preferred site for the storage and processing center is within an existing 2.6 acre, crescent-shaped "open dirt area" on the north side of Highway 101 within the Rincon Parkway region (Figure 1-5). The 1,000 foot-long site parallels Highway 101 within Ventura County and is "backed" to the north by an existing single railroad track right of way and sedimentary cliffs. The modest sized facility that is proposed for this project is intended to address relatively small volume beach nourishment needs such as construction of temporary winter sand berms. Upon successful demonstration of the facility's operation it is envisioned that the proposed project would serve as a template and guide to increase the ability to store and process more sediment via appropriate implementation of additional facilities of similar size or a larger capacity stockpile center within the BEACON region.

Preparation of the site and construction of the facilities are expected to take up to six months to complete. As currently envisioned, construction would be initiated within five to 10 years of acquisition of all required permits and authorizations.

### 1.4.3 Sand Retention Pilot Projects

The following describes the construction and operation of several sand retention pilot projects that are based on existing technologies. However, the CRSMP calls for the development of an innovative technology study for the purposes of identifying alternative methods for sand retention, and therefore future sand retention projects not described herein will require project-specific environmental review. To the extent that such future technologies are covered by the description and associated analyses presented in this IS and the subsequent CEQA document, future reviews may be tiered from that assessment.

The sand retention pilot projects comprise the placement of a 500 foot-long, crescent-shaped submerged structure onto the seafloor in -15 to -20 feet of water that is designed to reduce wave-induced erosion. Within the project region, the distance to those water depths generally ranges from 600 to 700 feet from the shoreline. The submerged structure is expected to be constructed from either quarry stone, sand-filled synthetic geotextile "bags" specifically fabricated for submerged reefs, or other appropriate materials. The height of the structure would vary depending upon the final water depth, but the crest elevation would be at the approximate -3 feet (MLLW) level. That height would allow the structure to remain submerged even during the lowest tides and low wave conditions. Up to 150,000 CY of sand would be placed as infill nourishment along a 1,200 foot-long section of the shoreline immediately inshore of the submerged structure to reduce trapping the natural longshore-transported sand.

The actual size, shape, and construction method of the submerged feature at any of the candidate sites will incorporate the results of the U.S. Army Corps of Engineers' pending

Section 227 Oil Piers offshore reef demonstration project located in Ventura County and will necessarily consider site-specific seafloor and oceanographic conditions. The submerged structure would be built primarily using marine equipment including an anchored derrick barge to set and position the material. The cross section of the submerged structure would be established through successive placements of rock material or by first placing then filling geotextile containers with sand. The transport and placement of the submerged structure materials would be by barge and a barge-mounted crane, respectively.

Sand that would be needed for the project may be imported from available sources including, but not limited to, the West Beach area of Santa Barbara Harbor, designated sand trap areas within Santa Barbara or Ventura Harbor, or previously-identified offshore borrow sites near Goleta or East Beach located between the 40 and 120 foot isobaths. The sand would be delivered to a site by a self unloading hopper dredge barge, trucks, or a combination of the two. If sand is delivered by hopper barge, two deliveries per day, each with approximately 2,000 CY of sand, would be completed. The hopper dredge would tie-off to a previously-placed mooring buoy located in approximately 20 feet of water and then pump the sand to the beach through a temporary, pre-positioned submerged pipeline. Onshore sand deliveries would utilize semi-end dump tractor trailers that would haul approximately 15 CY per load; up to 20 deliveries would be expected each day. Conventional earth moving equipment (i.e. Caterpillar D9 bulldozers and Series 900 front end loaders) would be used to grade the sand along the beach to the desired pre-fill profile.

If the submerged structure is subsequently abandoned, all structural material would be removed by clamshell dredge, placed onto a barge scow, and ultimately transported to a nearby harbor terminal for transport via truck to a local recycling facility or for use elsewhere. Any sand material that was within the geotextile bags would be removed and placed onto the seafloor at the site.

It is estimated a sand retention pilot project could be completed within 10 months of initiation of construction. This schedule assumes that approximately six months would be required to fabricate/acquire the submerged structure materials and four months would be required to construct the reef feature and place the sand along the beach.

Seven locations within the BEACON Coastline: Arroyo Burro County Beach, Butterfly Beach, Summerland Beach, Santa Claus Beach, La Conchita Beach, and North and South Rincon Parkway have been selected as potential candidate pilot project sites (Figure 1-6). A conceptual drawing of the submerged structure and beach fill area at each of these sites is provided in Figures 1-7 through 1-13.

### 1.4.4 West Hueneme Beach Renourishment Longevity Improvement

This project consists of the construction of multiple submerged structures of a similar design as those described for the sand retention pilot projects (Section 1.4.3) that are designed to enhance and prolong the retention of ongoing artificial sand nourishment at Hueneme Beach. Since the construction of Port Hueneme in the 1940s, the shoreline segment downcoast (south) of the southern Port Hueneme breakwater has been dependant upon artificial sand nourishment generated from dredging of the nearby Channel Islands Harbor. The proposed project is

intended to reduce wave-induced erosion and thus prolong the beach between maintenance dredging/beach enhancement cycles.

As shown in Figure 1-14, at least three multi-purpose offshore submerged structures would be built in a manner similar to those proposed in the sand retention pilot projects. Ideally, the completion of the construction of the offshore structures would be timed to immediately precede the bi-annual (every two years) Federal maintenance dredging at Channel Islands Harbor which usually places approximately two million CY of sand along Hueneme Beach. This sand nourishment is regularly performed to maintain the beaches east of the Port Hueneme harbor entrance because the jetties block the natural west to east transport of sand. A longer-term stabilization of West Hueneme Beach will result in some reduction of sand supply to downcoast beaches, therefore the proposed project will include a one-time placement of an estimated 200,000 CY of additional sand on the beach inshore of the submerged structures. This pre-fill component is intended to allow the sand that is bypassed from Channel Islands Harbor to be placed further downcoast so that shoreline processes east of the West Hueneme Beach stabilized area can be maintained.

Construction methods used for the submerged structures would be similar to those described in the sand retention pilot projects;. Construction time required for each of the three submerged structures is estimated to about one year.

### 1.4.5 Rincon Parkway Shoreline Restoration

The proposed activities associated with the Rincon Parkway shoreline restoration projects are similar to those discussed for the sand retention pilot projects (Section 1.4.3); however, two separate sites (north and south Rincon Parkway beaches) are proposed for restoration. The proposed actions would consist of the placement of multiple offshore submerged structures and the excavation, transport, and placing of sand along a 7,000 foot-long beach at the south Rincon Parkway site (Figure 1-15) and along an approximately 5,500 foot-long beach at the north Rincon Parkway site (Figure 1-16). Although similar in design to the proposed activities for the sand retention pilot projects, the Rincon Parkway projects differ from the former by:

1) requiring a larger volume of sand (350,000 to 500,000 CY) which will likely require the use of an offshore sand supply source;
2) placing multiple submerged structures; and
3) placing sand along a longer beach area.

The submerged structures would be constructed of rock or sand-filled geotextile bags which would be delivered to the site in barges towed by a tug. Placement of the structure material would be completed by an anchored derrick barge. Sand required for filling of the geotextile bags and/or for beach fill would be expected to be excavated from one of several documented offshore reserves (Goleta, Santa Barbara, and/or the Santa Clara River delta). The excavated sand would be placed onto barges and transported to the site for deposition. The sand barge would be moored to pre-placed buoys and would pump the sand onto the beach through a pre-positioned temporary pipeline. Approximately 2,000 CY of sand would be transported by each barge and a minimum of two deliveries per day is anticipated.

On the beach, conventional earth moving equipment (i.e. Caterpillar D9 bulldozers and Series 900 front end loaders) would be used to grade the sand to the desired profile. It is estimated that each of the Rincon Parkway restoration projects would take up to two years to complete. The estimated one year of actual in-water and on-beach construction would be preceded by material fabrication and/or acquisition during the first year.

### 1.4.6 Sand Capture at Mugu Submarine Canyon

This conceptual project consists of capturing and re-using sand that is normally lost into the Mugu Submarine Canyon. The project site is located at the southern boundary of the Santa Barbara Littoral Cell where sand that is transported through the cell is diverted offshore.

Figure 1-17 provides a schematic of the project which consists of a low profile, submerged sand retention structure that would be designed to intercept and retain sand that is normally transported into the mouth of Mugu Submarine Canyon. The retained sand could then be recovered by dredging and transported upcoast (north and west) by barge to be used to nourish beaches within the BEACON region. As currently envisaged, the sand retention structure would be approximately 1,500 feet long, would be constructed of an estimated 105,000 tons of quarry stone, and would be designed to retain at least 500,000 CY of sand annually. The stone is expected to be obtained from the Catalina quarry and the crest of the submerged structure would be at the 0.0 feet (MLLW) elevation, which translates to a submerged structure height of 15 to 20 feet depending upon its location. The low profile design would allow passage of the minimum amount of sand necessary to maintain the beach immediately up coast or west of the Mugu Submarine Canyon head (Figure 1-17).

The project would be built with a combination of marine and conventional land-based equipment. Floating marine equipment would be used to build the offshore sand retention structure, which would consist of stone or other approved submerged structure materials that would be delivered to the site via barge and placed with a floating derrick barge. The beach behind the submerged structure would be pre-filled one time with sand to establish the salient (bulge) shape so as to not interrupt the aforementioned downcoast transport. Sand would be pumped ashore from a suitable offshore borrow area nearby using a hydraulic cutter suction or hopper dredge. As the sand is pumped onshore it would be spread and graded using conventional land based equipment expected to consist of two Cat D8 bulldozers and one or two Cat Series 900 front end loaders to relocate the dredge pipe along the beach. An onshore staging and storage area, capable of supporting a 10 foot by 20 foot office trailer for personnel and a 10 foot by 40 foot supplies trailer to store project-related expendables would be required.

Fueling of the onshore equipment would occur within this facility and would be completed in compliance with a project-specific refueling and spill prevention plan. Access to the beach is expected to be through the Mugu Naval Air Station. Construction of the project is expected to take up to one year and the onshore staging/storage site would be restored to pre-construction conditions following completion of construction activities. Removal of the accumulated sand would likely be by an anchored clam shell and the recovered sand would be transported via barge to a predetermined beach nourishment site. Alternatively a self propelled hopper dredge could be used to remove and transport the sand.

### 1.4.8 Opportunistic Sand Use Ordinance

BEACON is recommending that member cities and counties adopt an ordinance that would mandate public and private projects be evaluated in consultation with BEACON for their potential impacts on sand beaches. Such impacts may result from the direct removal of earth resources in the coastal watersheds or the creation of impediments to natural migration of earth materials to the coast. The ordinance would also require mitigation of these effects, as well as mandate the use of excess earth material from project sites for beach nourishment where feasible. A prototype ordinance titled: "An Ordinance Requiring Consideration and Mitigation of Loss of Sand Resources for Beach Nourishment and Private Projects" has been prepared by BEACON and is presented in Section 10.0 as Attachment A.

## 2.0 PROJECT LOCATION

The project is located along the coastal area of Santa Barbara and Ventura counties bounded by Point Conception to the north and west and the Mugu Submarine Canyon to the south and east (Figure 1-1). The layout and location of the individual components are provided in Figures 1-2 through 1-17).

## 3.0 ENVIRONMENTAL SETTING

A brief description of the existing conditions related to the technical issues which are assessed in this IS is provided with each subsection below. Additional "baseline" information will be provided in the environmental document.

## 4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is defined as follows:

**Potentially Significant Impact:** A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

**Less Than Significant Impact with Mitigation:** Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

**Less Than Significant Impact:** An impact is considered adverse but does not trigger a significance threshold.

**No Impact:** There is adequate support that the referenced information sources show that the impact simply does not apply to the subject project.

**Reviewed Under Previous Document:** The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is

found, and identification of mitigation measures incorporated from the previous documents.

## 4.1 Aesthetics/Visual Resources

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view? | | X | | | |
| **b.** Change to the visual character of an area? | | X | | | |
| **c.** Glare or night lighting which may affect adjoining areas? | | X | | | |
| **d.** Visually incompatible structures? | | X | | | |

**Setting:**

The project sites are all located on or near coastal beaches of the coastline between Point Conception and Point Mugu, in southern California. Beaches are considered a valued scenic resource to the residents of and visitors to the area. All of the project sites are visible to the public, and all of the project sites, except the proposed Regional Sediment Management Stockpile and Processing Center located on the northern Rincon Parkway, are used by the public for recreational purposes. The Regional Sediment Management Stockpile and Processing Center site has historically been used by the California Department of Transportation for material stockpiling and is located immediately north of U.S. Highway 101, the primary travel corridor in the project region. Additionally, this site is located immediately south of railroad tracks which accommodate passenger trains and site is clearly visible from these traffic corridors. Based on the California Scenic Highway Mapping System, U.S. 101 in this area is considered to be an eligible State Scenic Highway (California Department of Transportation, 2009).

**Environmental Thresholds:**

The project sites are located in the counties of Santa Barbara and Ventura as well as the cities of Santa Barbara, Oxnard and Port Hueneme. For the purposes of this aesthetics assessment, county thresholds have been considered. The County of Santa Barbara's Comprehensive Plan Open Space Element identifies significant visual resources which have aesthetic value including: scenic highway corridors; parks and recreation areas; views of coastal bluffs, streams, lakes, estuaries, rivers, water sheds, mountains and cultural resources sites; and scenic areas. The County of Santa Barbara's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and scenic travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if, among other potential effects, it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views. The County of Ventura Initial Study Assessment

Guidelines (2006) threshold criterion for visual resources is that a project would have a significant impact if it would "degrade visual resources or significantly alter or obscure public views."

**Impact Discussion:**

a., b., d. The project would result in the introduction of construction equipment into scenic areas (beaches and ocean waters) and/or within the viewshed of visually-sensitive travel corridors. For some projects (Sand Retention Projects, North and South Rincon Parkway Shoreline Restorations, and Sand Capture at Mugu Submarine Canyon) the equipment would be located offshore. Onshore equipment would be required for the Oxnard Shores Sand Management Project (fence installation and movement of accrued sand), Sand Retention Pilot Projects (sand import to pre-fill the beach), Regional Sediment Management Stockpile and Processing Center (construction/installation of facilities and ongoing movement of sand), North and South Rincon Parkway Shoreline Restorations (onshore grading), and one time for grading at the Sand Capture at Mugu Submarine Canyon project. The use of equipment for the single event construction and/or placement of permanent structures would be a temporary impact; however, due to the high level of visual sensitivity of the area, these short-term aesthetic impacts may be considered significant and warrant mitigation.

Over the long term, aesthetic impacts would be associated with the introduction of structures into the environmental and the presence of equipment during periodic maintenance activities associated with the operational phase of the projects. Proposed project structures are limited to the following:

- Oxnard Shores Sand Management Project - fencing
- Regional Sediment Management Stockpile and Processing Center - office trailer, and garage to house equipment (sand stockpiles would also be on site)
- Sand Retention Projects – submerged offshore underwater structures (not visible)
- West Hueneme Beach Renourishment Longevity Improvement – submerged offshore underwater structures (not visible)
- North and South Rincon Parkway Shoreline Restorations – submerged offshore underwater structures (not visible)
- Sand Capture at Mugu Submarine Canyon – submerged offshore, underwater structure (partially visible at lowest tides)

Only the Oxnard Shores Sand Management Project and Regional Sediment Management Stockpile and Processing Center would have permanent land-based structural components. These structures would be located within visually sensitive areas. Their introduction has the potential to result in significant, adverse impacts to the aesthetic environment.

Ongoing periodic use of equipment would be required for all projects with the exception of the Sand Retention Projects. Similar to the discussion of short-term construction impacts, equipment operation has the potential to result in significant aesthetic impacts.

The sand that would be needed for the projects may be imported by a self unloading hopper dredge barge, trucks, or a combination of the two. As such, the projects would result in the introduction of such equipment into a visually-sensitive environment (coastal beach and nearshore areas). This may be considered a significant adverse aesthetic impact.

c. The only proposed project that has the potential to result in significant light and glare impacts is the Regional Sediment Management Stockpile and Processing Center. This project would introduce structures to a site within 50 feet of U.S. Highway 101. Should highly reflective materials or inappropriately-oriented night-time lighting be incorporated into this project, significant impacts could result.

**Mitigation and Residual Impact:**

a., b., d. The following mitigation measures would reduce the aesthetic impacts listed in (a) through (d) above and resulting from the short-term use of construction equipment and long-term periodic, operation-related equipment use to a less than significant level. In addition, the proposed activities are considered to be short-term and the proposed project-related equipment and vehicles are not uncommon in coastal Santa Barbara and Ventura counties.

**AES-1** The contractor for the construction phase of the Regional Sediment Management Stockpile and Processing Center shall prepare and submit a "construction good-housekeeping plan" to BEACON. The plan will include at a minimum: designation of specific areas for materials and equipment storage during construction, proper disposal of construction debris and screening of materials and equipment from public view to the extent feasible. The plan shall be submitted to BEACON for approval prior to construction and the approved plan shall be implemented by the contractor during construction.

**AES-2** Unless this measure conflicts with the protection of sensitive biological resources at a specific project site, construction shall be scheduled to avoid the peak recreational season (June 1-September 1) and holidays when the greatest number people will potentially be viewing the project sites. This

measure shall be included in the construction requests for bids and will be applicable to the construction phase of all projects and the periodic use of equipment during the operational phase of the projects.

c. The following mitigation measures are required to reduce long-term structure- and lighting-related aesthetic impacts to a less than significant level.

**AES-3** The Regional Sediment Management Stockpile and Processing Center shall include appropriate on site screening with vegetation (native species to the extent feasible) to minimize views of the project from U.S. Highway 101. Additionally, the exterior color of project structures shall be compatible with surrounding terrain (earth tones and non-reflective paints) and any light fixtures shall be oriented downward to minimize off-site light. Landscaping, exterior structure color and lighting requirements shall be shown on site/building/landscape plans as may be developed by BEACON. Plans shall be developed prior to construction and implemented during the construction phase. Landscape and color requirements are to be maintained throughout the life of the project.

**AES-4** Fencing to be used Oxnard Shores Sand Management Project or other similar sand management projects shall be constructed of or treated with materials that are resistant to graffiti, as feasible. Fencing shall be maintained in excellent condition such that it does not create an aesthetic blight. Fence material requirements shall be identified on the construction invitation to bid and approved by BEACON prior to construction. BEACON shall be responsible for insuring that proper materials are used for fencing and that fencing is adequately maintained.

## 4.2 Agricultural Resources

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs? | | | | X | |
| **b.** An effect upon any unique or other farmland of State or Local Importance? | | | | X | |

**Setting:**

The project sites are primarily offshore or on beaches with the exception of the Regional Sediment Management Stockpile and Processing Center site. This 2.6 acre site has been historically used by the California Department of Transportation for material stockpiling. Further, this site is located along a portion of the coastline that has undergone significant changes due to

the construction of the Highway 101 freeway. The construction of Highway 101 resulted in the filling of several hundred feet seaward of the original coastline. Thus the majority of the site consists of fill material backed by steep, highly eroded bluffs.

**Impact Discussion:**

None of the project sites contain a combination of viable agricultural acreage and/or soils which render them important agricultural resources. Additionally, the sites do not adjoin and/or will not impact any neighboring agricultural operations.

**Mitigation and Residual Impact:**

No impacts are identified. No mitigations are necessary.

## 4.3 Air Quality

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)? | X | | | | |
| **b.** The creation of objectionable smoke, ash or odors? | | | X | | |
| **c.** Extensive dust generation? | | X | | | |
| **Greenhouse Gases** | **Significant** | | **No classification** | | |
| **d**. Emissions equivalent to or greater than 25,000 metric tons of $CO_2$ per year from both stationary and mobile sources during long-term operations? | | | X | | |

**Setting:**

The United States (U.S.) Environmental Protection Agency (EPA) has designated all areas of the U.S. as having either air quality better than (attainment) or worse than (nonattainment) the National Ambient Air Quality Standards (NAAQS). The NAAQS are federal air quality standards established under the Clean Air Act (CAA). The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The SIPs must include pollution control measures that demonstrate how the standards will be met. "Non-attainment" areas are further categorized as either marginal, moderate, serious, severe, or extreme, depending upon the numerical exceedance of the priority pollutant standard and the measures that are in place to reduce these pollutant levels. These designations are specific to the area and the pollutant.

Santa Barbara County. In Santa Barbara County, the Santa Barbara County Air Pollution Control District (SBCAPCD) is the local agency primarily responsible for attaining the air quality standards established by the California Air Resources Board (CARB) and the U.S. EPA. The SBCAPCD implements programs and regulations to control air pollution released from stationary sources within the District, as well as programs to encourage alternative means of transportation.

Air quality within Santa Barbara County is monitored by a network of 17 stations. The local air basin does not meet State standards for ozone ($O_3$) and inhalable particulate matter less than 10 microns in diameter ($PM_{10}$), therefore Santa Barbara County is considered a state non-attainment area for those pollutants; however, the air basin is considered to be in attainment for particles less than 2.5 microns in diameter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), and sulfur dioxide ($SO_2$). In 2007 the SBCAPCD adopted the Clean Air Plan in order to address methods for maintaining the Federal 8-hour ozone standard and methods for reaching attainment of the State 1-hour ozone standard.

Ventura County. The Ventura County APCD is the local agency responsible for monitoring, regulating and improving ambient air quality within Ventura County. The air quality of Ventura County is monitored by a network of air monitoring stations operated by the CARB and VCAPCD. The air monitoring network includes six stations in Ventura County. Ambient air quality data collected in Ventura County has resulted in the designation of non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, State 8-hour ozone standard, and State PM10 and PM2.5 standards.

Greenhouse Gases. Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These greenhouse gases lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the Greenhouse Effect. There is increasing evidence that the Greenhouse Effect is leading to global climate change. Potential effects of global climate change include reduced water supplies in some areas, ecological changes that threaten some species, reduced agricultural productivity in some areas, increased coastal flooding, and other effects.

The primary source of GHG in the United States is energy-use related activities, which include fuel combustion, as well as energy production, transmission, storage and distribution. These energy related activities generated 85 percent of the total U.S. emissions on a carbon equivalent basis in 1998 and 86 percent in 2004. Fossil fuel combustion represents the majority of the energy related GHG emissions, with $CO_2$ being the primary GHG. Both the legislature and California Climate Action Team (CCAT) currently estimate that the solid waste industry, particularly landfills, is a significant source of the total net GHG emissions in California and should be a major focus of any efforts to reduce GHG emissions.

Currently there are no established thresholds of significance for GHG emissions at a National, State or local level. GHG emissions generated from the proposed project will be estimated for the air quality analysis in the EIR, however no conclusion regarding significance will be possible.

**Environmental Thresholds:**

SBCAPCD Thresholds. Chapter 5 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (as amended in 2006) addresses the subject of air quality. The thresholds provide that a proposed project will not have a significant impact on air quality if operation of the project will:

- Emit (from all project sources, mobile and stationary), less than the daily trigger (55 pounds per day) for offsets for any pollutant; and
- Emit less than 25 pounds per day of oxides of nitrogen (NOx) or reactive organic compounds (ROC) from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- Be consistent with the adopted federal and state Air Quality Plans.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, paints, solvents, and chemical or industrial processing operations that release pollutants).

Santa Barbara County's methodology to address Global Climate Change in CEQA documents is evolving. Until appropriate regulatory entities develop CEQA thresholds for GHGs, only relatively large GHG emitters will be considered to have cumulatively significant effects on the environment. CARB's Resolution 07-54 establishes that projects that are estimated to emit the equivalent of 25,000 metric tons of $CO_2$ emissions from direct and indirect, long-term operational sources would be considered to have a cumulatively significant impact on greenhouse gas emissions. Projects in Santa Barbara County below these levels remain unclassifiable until more evidence becomes available.

Ventura County APCD Thresholds. In October 2003, the VCAPCD revised the County's Air Quality Assessment Guidelines (Guidelines), which include project-specific thresholds that should not be exceeded to ensure consistency with the Air Quality Management Plan (AQMP) and minimize public exposure to pollutants. These guidelines include thresholds that:

- Conflict with or obstruct implementation of the AQMP;
- Violate any air quality standard or contribute to an existing or projected air quality violation;

- Result in a cumulatively considerable net increase of any criteria non-attainment pollutant;

- Expose the public (especially schools, day care centers, hospitals, retirement homes, convalescent facilities and residences) to substantial pollutant concentrations; and

- Create objectionable odors affecting a substantial number of people.

A considerable net increase of ozone precursors (a non-attainment pollutant) is considered 25 pounds per day of reactive organic gases (ROG) and oxides of nitrogen ($NO_X$). The Ventura County APCD significance thresholds are not applicable to construction emissions since these emissions are only temporary (APCD, 2003). However, due to the lack of attainment of the ozone and $PM_{10}$ standards, mitigation should be applied to all phases of construction where feasible.

Ventura County does not have any established thresholds for GHG emissions.

**Impact Discussion:**

a. A discussion of potential emissions and impacts from each proposed projects is provided below.

Oxnard Shores Sand Management Project. This project will take place in the jurisdiction of the VCAPCD. Emissions of ozone precursors ($NO_x$ and ROG) during project construction would result primarily from the on-site use of heavy earthmoving equipment such as a small front end loader or small bulldozer during relocation of collected sand. This project, involving the use of a small front end loader to move sediment, is not expected to cause a violation of ambient air quality standards for Ventura County, because of the limited amount of equipment to be used.

Regional Sediment Management Stockpile and Processing Center. This project will take place in the jurisdiction of the VCAPCD (but very close to the county line for Santa Barbara). Emissions of ozone precursors ($NO_x$ and ROC) during project construction would result primarily from the on-site use of heavy earthmoving equipment such as a small front end loader or small bulldozer and heavy-duty dump trucks which will deliver sand to the stockpile site. Maximum daily emissions of $NO_X$ is not expected to violate any construction emission thresholds, but since Ventura County is in non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, and the State 8-hour ozone standard, these emissions could have a negative affect on local air quality. This impact is expected to be less than significant.

Sand Retention Pilot Projects. Emissions of ozone precursors ($NO_x$ and ROG) during project construction would result primarily from the use of a tug boat to transport the barge, and heavy earthmoving equipment such as front end loaders and other diesel powered equipment. The Arroyo Burro State Beach, Butterfly

Beach, Summerland Beach, and Santa Claus Beach projects will take place within Santa Barbara County and therefore are in the jurisdiction of the SBCAPCD. Within Santa Barbara County, maximum daily $NO_x$ emissions during any of the pilot projects is expected to exceed the SBCAPCD established threshold of significance of 55 lbs of $NO_x$ per day. The daily use of a tug boat during project operations will violate the 55 lb per day $NO_x$ threshold on its own, not considering other equipment emissions. This is expected to be a significant and unavoidable impact.

The La Conchita Beach, North Rincon Parkway and South Rincon Parkway projects will take place within Ventura County and therefore are in the jurisdiction of the VCAPCD. Ventura County does not have any thresholds of significance for construction, however since Ventura County is in non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, and the State 8-hour ozone standard, project emissions could have a negative affect on local air quality, but are not considered to be significant.

West Hueneme Beach Renourishment Longevity. This project will take place within Ventura County and therefore is in the jurisdiction of the VCAPCD. This project will be utilize similar construction methods and equipment as the Sand Retention Pilot Projects, but will be on a larger scale. As with the pilot projects, emissions of ozone precursors ($NO_x$ and ROG) at West Hueneme Beach during construction would result primarily from the use of a tug boat to transport the barge, and heavy earthmoving equipment such as front end loaders and other diesel powered equipment. Maximum daily $NO_x$ emissions will not violate any construction emission thresholds, but since Ventura County is in non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, and the State 8-hour ozone standard, these emissions could have a negative affect on local air quality. Due to the long construction period (one year for each of the submerged structures), the long-term impacts of this project on local air quality could be significant and unavoidable.

North and South Rincon Parkway Shoreline Restoration. These projects will take place within Ventura County and therefore are in the jurisdiction of the VCAPCD. This project will utilize similar construction methods and equipment as the Sand Retention Pilot Projects, but will be on a larger scale. As with the West Hueneme Beach Project, emissions of ozone precursors ($NO_x$ and ROG) during the Rincon Parkway Shoreline Restoration projects would result primarily from the use of a tug boat to transport the barge, and heavy earthmoving equipment such as front end loaders and other diesel powered equipment. Maximum daily $NO_x$ emissions during construction will not violate any construction emission thresholds, but since Ventura County is in non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, and the State 8-hour ozone standard, these emissions could have a negative affect on local air quality. Due to the long construction period (one year for each of the two Rincon Parkway

projects), the long-term impacts of this project on local air quality could be significant and unavoidable.

Retain and Collect Sand at the Mugu Submarine Canyon. This project will take place within Ventura County and therefore is in the jurisdiction of the VCAPCD. This project will be utilize similar construction methods and equipment as the other sand retention projects, but will also involve the use of a dredge to transport sand from the sand capture area to the beach. Emissions of ozone precursors ($NO_x$ and ROG) during the Sand Capture at Mugu Submarine Canyon Project would result primarily from the use of a tug boat to transport the barge, operation of a hydraulic dredge, diesel powered equipment such as cranes and generators and onshore earthmoving equipment such as bulldozers and front-end loaders. Maximum daily $NO_x$ emissions during construction of the project will not violate any construction emission thresholds, but since Ventura County is in non-attainment for Federal 8-hour ozone standard, State 1-hour ozone standard, and the State 8-hour ozone standard, these emissions could have a negative affect on local air quality. Due to the long construction period (one year), the long-term impacts of this project on local air quality could be significant and unavoidable.

b. Oxnard Shores Sand Management Project. Activities associated with this project will not produce any smoke, or ash, but objectionable odors from the combustion of diesel fuel are possible. Project activity will involve construction of a fence, and operation of a small front end loader or bulldozer to move sand. Project activities will occur within 100 feet of beachside homes, however since activity will be short term (3-5 day activity cycles) and is limited to only one small earthmoving piece of equipment would be used at a time, this is expected to be a less than significant impact.

Regional Sediment Management Stockpile and Processing Center. Activities associated with this project that could cause objectionable odors include the delivery and storage of organic material in the delivered sediment, and the operation of diesel fueled earthmoving equipment and delivery trucks. Project activity will involve the operation of a small front end loader or bulldozer to move sand, and dump trucks to deliver sand and sediment for the stockpile. However, the location is not adjacent to any residences, and the closest establishment is the Cliff House, Hotel and restaurant, 0.3 miles east of the proposed site. Impacts from odors will be less than significant because of adequate distance from the project site to the Cliff House, the low probability of odors from organic material.

Sand Retention Pilot Projects. Activities associated with these projects will not produce any smoke or ash, but objectionable odors from the combustion of diesel fuel are possible. Project activity will involve the use of a tug boat, crane, diesel equipment and several loaders/dozers, all of which will take place offshore or on beaches. Offshore activity will be a sufficient distance from sensitive

receptors to avoid impacts, however onshore activity has the potential to be within 200-300 feet of residential homes. Diesel fumes from heavy duty trucks and earthmoving equipment could cause odors, however the relatively short term nature of the projects and the limited number of truck trips (20 per day) and pieces of earthmoving equipment (2) would minimize these impacts. Despite the close proximity, this is expected to be a less than significant impact.

West Hueneme Beach Renourishment Longevity. Activities associated with this project will not produce any smoke, ash, but objectionable odors from the combustion of diesel fuel are possible. Project activity will involve the use of a tug boat, crane, diesel equipment and several loaders/dozers, all of which will take place offshore and on West Hueneme Beach. Offshore activity will be a sufficient distance from sensitive receptors to avoid impacts. This is expected to be a less than significant impact.

North and South Rincon Parkway Shoreline Restoration. Activities associated with this project will not produce any smoke or ash, but objectionable odors from the combustion of diesel fuel are possible. Project activity will involve the use of a tug boat, crane, and diesel equipment offshore and several loaders/dozers along the two beaches. No smoke, ash or objectionable odors are expected to result from the project; this is a less than significant impact. Offshore activity will be a sufficient distance from sensitive receptors to avoid impacts, however onshore activity has the potential to be within 200 feet of campgrounds at Faria Beach County Park during work at South Rincon Beach and within 300 feet of residential homes on Solimar Beach Drive during activity at North Rincon Beach. On beach activity near sensitive receptors will involve the use of earth moving equipment during daytime hours. Delivery of sand will occur an adequate distance from the sensitive receptors to avoid impacts. Despite the long duration of the project, only a fraction of that time will involve activity that is within close proximity to sensitive receptors (a week or less), this is expected to be a less than significant impact.

Retain and Collect Sand at the Mugu Submarine Canyon. Activities associated with this project will not produce any smoke or ash, but objectionable odors from the combustion of diesel fuel and from dredged sand deposited onto are possible. Offshore Project activity will involve the use of a tug boat, crane, hydraulic dredge and other diesel equipment, all of which will take place offshore at a distance sufficient to avoid any odor impacts to significant receptors. Dredged sand, which is planned to be deposited on the beach, could cause objectionable odors. In addition, onshore activity involving earthmoving equipment (bulldozers and front end loaders) could cause objectionable odors, however there are no sensitive receptors in the area that could be impacted from either diesel related odors or from the planned sand deposition. This is expected to be a less than significant impact.

c. Oxnard Shores Sand Management Project. Activities associated with this project are not expected to generate a significant amount of dust. The earth moving activity will involve sand, which is not a significant generator of dust. No mitigation will be necessary since this impact is expected to be less than significant.

Regional Sediment Management Stockpile and Processing Center. Earth moving during construction (grading of site) and operations (transportation of sand) at the sand stockpiling site could have the potential to produce fugitive dust and $PM_{10}$. If dust generation occurs at the stockpile location, implementation of standard dust control measures would make this a less than significant impact with mitigation. Possible mitigation would be to water the graded areas and delivered sediment with sprinklers especially during high wind events.

Sand Retention Pilot Projects. Activities associated with this project are not expected to generate a significant amount of dust. The sand delivery and on-beach transportation will not generate dust. No mitigation will be necessary since this impact is expected to be less than significant.

West Hueneme Beach Renourishment Longevity. Activities associated with this project are not expected to generate a significant amount of dust. The sand delivery and on-beach transportation is not expected to generate dust. No mitigation will be necessary since this impact is expected to be less than significant.

North and South Rincon Parkway Shoreline Restoration. Activities associated with this project are not expected to generate a significant amount of dust. The sand delivery and on-beach transportation is not expected to generate dust. No mitigation will be necessary since this impact is expected to be less than significant.

Retain and Collect Sand at the Mugu Submarine Canyon. Activities associated with this project are not expected to generate a significant amount of dust. The one-time sand delivery and on-beach transportation is not expected to generate dust. No mitigation will be necessary since this impact is expected to be less than significant.

d. Because the emission sources associated with the projects are internal combustion engines, the predominant GHG emitted by the Project would be carbon dioxide ($CO_2$). As previously mentioned, there are no National, State or Local thresholds of significance to evaluate potential impacts from GHG. However, based on these projects relatively short term construction timelines, when compared with emissions throughout the state, these emissions are assumed to be less than significant.

It is possible that GHG emissions associated with the proposed projects, when combined with emissions throughout the area, the counties of Santa Barbara and Ventura, the South Central Coast Air Basin, and the world, might incrementally contribute to climate change. Locally, there are industrial, commercial and residential projects in the areas of the projects that contribute to cumulative impacts due to the release of GHG emissions. The Draft GHG Emissions Inventory (CARB, 2008), estimated that the annual $CO_2E$ for all GHGs produced in California in 2004 to be 468.8 million metric tons. Therefore the GHG emissions associated with all segments of the projects would represent a negligible percentage of the annual GHG emissions produced statewide.

While global climate change is, by definition, a significant cumulative environmental impact there is currently no agreed-upon methodology to adequately identify the impacts under CEQA. However, based on the small percentage of GHG emissions associated with the proposed projects, when compared to annual GHG emissions produced statewide, these emissions are expected to be less than significant.

**Mitigations and Residual Impacts:**

The impacts discussed in (a) above are expected to be significant and unavoidable in both Santa Barbara and Ventura counties. Emission offsets are not considered a possible mitigation, because emissions offsets are scarce and not considered to be a feasible measure for projects. The following mitigation measures should be implemented to all project components to minimize the severity of the impacts in Santa Barbara and Ventura counties; however impacts will likely remain significant.

**AQ-1** Prior to and during project activity, equipment will be maintained in proper tune according to manufacturer's specifications.

**AQ-2** Minimize idling time of heavy duty trucks.

**AQ-3** Low-sulfur diesel fuel shall be used in all diesel-powered vessels and all construction equipment as feasible.

To reduce the impacts discussed in (c) for the Regional Sand Stockpile project, implement a standard dust control measure. Implementation of these measures will ensure that this impact remains less than significant with mitigations.

**AQ-4** Watering the sand with sprinklers, especially during high wind events.

## 4.4 Biological Resources

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **Flora** | | | | | |
| **a.** A loss or disturbance to a unique, rare or threatened plant community? | X | | | | |
| **b.** A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants? | X | | | | |
| **c.** A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)? | | X | | | |
| **d.** An impact on non-native vegetation whether naturalized or horticultural if of habitat value? | | | X | | |
| **e.** The loss of healthy native specimen trees? | | | X | | |
| **f.** Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat? | | X | | | |
| **Fauna** | | | | | |
| **g.** A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals? | X | | | | |
| **h.** A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)? | X | | | | |
| **i.** A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)? | X | | | | |
| **j.** Introduction of barriers to movement of any resident or migratory fish or wildlife species? | | | X | | |
| **k.** Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife? | | | X | | |

**Setting:**

Santa Barbara and Ventura counties have a wide diversity of habitat types, including chaparral, oak woodlands, wetlands and beach dunes. In addition, intertidal and offshore

biological resources and sensitive habitats include rocky reefs, kelp beds, and submarine canyons. Special status species that have been reported within the two counties include both terrestrial and aquatic/marine taxa; the habitats that support those species are also considered sensitive.

In addition to specified habitats and species, the State of California is currently developing a series of Marine Protected Areas (MPA) along the mainland of Santa Barbara Channel. Five of those MPAs (Point Conception State Marine Reserve [SMR], Kashtayit State Marine Park [SMP], Naples State Marine Conservation Area [SMCA], Campus Point SMR, and Goleta Slough SMR) are within the project region. Each MPA has specific restrictions that range from prohibition of taking all living organisms and cultural resources to the protection of site for ongoing research. Final approval of the MPAs within southern California is expected in 2011. Additional details on the existing biological resources, sensitive resources and habitats, and MPAs within the region and project-specific sites will be provided in the PEIR following public and agency review and comment on this IS.

**Environmental Thresholds:**

Santa Barbara County's Environmental Thresholds and Guidelines Manual (2008) and Ventura County's Initial Study Assessment Guidelines (2008) include guidelines for the assessment of biological resource impacts. The following thresholds are applicable to this project:

Projects which result in a net loss of important wetland (defined as coastal salt and brackish marshes, fresh water marshes, and vernal pools) areas or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten the continuity of wetland-dependant animal or plant species are considered to have a potentially significant effect on the environment. Projects which substantially interrupt wildlife access, use and dispersal in wetland areas would typically be considered to have a potentially significant impact.

Santa Barbara County defines significant effects to wetlands as those actions that would result in alteration of tidal circulation or decrease of tidal prism; adverse hydrologic changes; substantial increase of sedimentation, introduction of toxic elements or alteration of ambient water temperature; construction activity which creates indirect impacts such as noise and turbidity on sensitive animal species, especially during critical periods such as breeding and nesting; disruption of wildlife dispersal corridors; or disturbance or removal of substantial amounts of marsh habitats.

Ventura County's existing significance criteria for wetland impacts focus on the direct reduction of, or a substantial indirect impact to, a significant Wetland Habitat. Ventura County suggests that all wetlands are potentially significant. Further, a project could be considered to have potentially significant effects to biological resources if the entire project area is: 1) not within a developed or cultivated area or one that is presently devoid of vegetation; 2) adjacent to native vegetation areas; 3) at least 300 feet from a marsh, small wash, intermittent lake, intermittent stream, spring, perennial stream or other wetlands; and 4) is at least 500 feet from coastal waters or an intertidal area, estuary, lake, wetland or sand dune within the Coastal Zone. Based on these criteria, the proposed actions could result in potentially significant impacts to the biological resources within Ventura County's jurisdiction.

Although no specific guidelines on offshore resource assessment are provided in those documents, the applicability of several of the significance criteria for onshore species and habitats (*i.e.* substantial reduction in diversity of a biological community, substantial alteration to a unique or rare habitat, degradation of water quality, and affecting special status species or their required habitat[s]) would apply to marine resources also. The introduction of non-indigenous species and/or increasing the area of habitation of those species (*i.e.* the non-native algae *Caulerpa taxifolia*) in the marine waters would also be considered potentially significant. Additionally, any impact to a species that is "listed" under the state or federal Endangered Species Act, to a habitat that is considered essential to managed fish and invertebrate species relevant to the Magnuson-Stevens Fishery Conservation and Management Act, or that could affect species covered by the Marine Mammal Protection or Migratory Bird Acts would be considered potentially significant.

**Impact Discussion:**

Actions that could affect 1) special status species (*i.e.* federal or state listed rare, threatened, or endangered); 2) environmentally sensitive habitats (ESH) such as wetlands, rocky intertidal or offshore reefs/tidepools, kelp beds, migration corridors, or habitats that support special status species; 3) or substantially diminish a population or community; or 4) reduce the diversity or a community or the quality of a habitat, would be considered significant. The potential sources of impacts to the existing biological communities and associated habitats from the proposed actions include those associated with offshore sand excavation; placement of anchors and/or the sand-slurry pipeline onto natural rock features; grading of laydown areas, access routes, and the Regional Sediment Management Stockpile and Processing Center site; placing of sand onto the beach during critical periods for sensitive species; and degradation of existing habitats through burial, reduced water quality, or the introduction of non-endemic species.

The following discusses justification for potential impact level of significance as shown in the table above and an initial list of potential mitigations is provided.

a. The project has the potential of generating significant impacts on onshore/coastal dune vegetation and/or other terrestrial flora from grading and clearing of access routes to the beach, within the regional sediment management site, and within equipment laydown/storage sites. Additionally, kelp and other macrophytic algae, eelgrass, and surfgrass could be affected during offshore operations including sand dredging, vessel/barge anchoring, and the laying of the sand-slurry pipeline. Solid substrate material used to create the offshore structures would provide additional attachment habitat for marine flora and would, therefore be expected to be beneficial.

b. Because there are no threatened or endangered marine flora, the project would not result in any significant effects to those taxa. Onshore effects could, however, result in potential impacts to special status plant species as described in (a) above.

c. The project could result in the loss of a small amount of other native vegetation (e.g., annual grassland, coastal sage scrub, etc.). The actual area would depend

upon the location and size (width and length) of coastal access sites and equipment laydown areas. Grading and site preparation prior to the construction of the Regional Sediment Management Stockpile and Processing Center site could also result in the loss of some native vegetation. Impacts to kelp, eelgrass, or surfgrass within the marine waters could result from increased turbidity, the anchoring of vessels or laying of the slurry pipeline, or from the deposition of sediment onto the substrate that supports those plants.

d. The project would not be expected to result in the loss of substantial amount of annual grassland or another vegetation type that is composed primarily of non-native species. The actual area for the access and laydown areas would have to be determined prior to initiation of each project, however the limited value and anticipated small area of loss to that vegetation results in a less than significant impact.

e. Because of the coastal and offshore nature of the proposed projects, no oaks or other native trees would be expected to be affected by the proposed actions. Access routes and equipment laydown areas would be located as close to the beach as possible, a habitat that is not usually conducive to supporting that type of vegetation.

f. Because the onshore activities are limited to grading, short-term equipment access, and sand spreading, less than significant effects related to those factors within the terrestrial habitats are expected. If the discharge of ballast from foreign vessels used to transport sand or rock material or tugs used to place anchors is not controlled, non-indigenous plant species could be introduced into the marine waters. Anchoring or other seafloor disturbing activities could result in the disturbance and increased distribution of the non-native *Caulerpa taxifolia* algae.

g. Several special status animals, including mammals (all marine mammals, including the southern sea otter), birds (snowy plover and least tern), reptiles/amphibians (red-legged frog, southwestern pond turtle, and two-striped garter snake), fish (steelhead, grunion, and tidewater goby), and invertebrates (white abalone, monarch butterfly) have been recorded within the project region. These species, and the habitat that each requires, could be subjected to impacts from the proposed actions; because of the special status of these species, any impacts would be considered potentially significant. Details on the location, habitat, and other requirements of these species and specific mitigations to reduce or eliminate potential effects will be provided in the CEQA document.

h. Disturbance or modification of existing habitat through the placement of anchors, pipelines, or sand, as well as the excavation of sand from offshore areas, could result in the reduction of animals within the affected area. Impacts to rocky substrate, and the organisms associated with that habitat type, would be considered potentially significant due to the paucity of that type of natural substrate within the Santa Barbara Channel and the special status or sensitive species (*i.e.*

kelp, abalone, and surfgrass) that require that habitat. Sand placement onto the beach could affect snowy plovers during nesting season, the viability of grunion eggs buried within the existing sand beach during spawning season, and could also impact nearby estuaries and streams that potentially support steelhead and tidewater gobies. Turbidity generated during offshore dredging or other seafloor disturbing activities could also affect least tern foraging activities, and vessel-marine mammal interactions, including the effects of noise, could occur during sand transport and while the vessel is at-anchor. The placement of additional hard substrate within the marine waters would be expected to provide additional habitat and attachment areas for epifauna and thus is considered a beneficial effect of the project. Other potential impacts that could result in the reduction of animals within the project areas will be discussed in the CEQA document.

i. Similar to (h) above, degradation of water quality, damage to rocky substrate, or alteration of existing onshore habitats could result in potentially significant impacts to the existing animal community. Of particular concern would be effects to the habitats, including wetlands, estuaries, rocky substrate, or onshore vegetation, that support the aforementioned special status species. Avoidance of those habitats or restoration/replacement of areas that are affected should be considered in the planning of proposed operations. Potential effects to commercially-harvested kelp, fish, and invertebrates could result from alteration of habitat that support those organisms. Additional discussions on the potential effects of proposed actions on the existing animal habitats, and mitigations to reduce or eliminate those effects, will be provided in the CEQA document.

j. As currently proposed, the “barriers”, consisting of the offshore rock structures and the onshore fencing, are not expected to significantly reduce the movement or migration of organisms. The offshore structures will be relatively small and widely spaced, thus allowing organisms to traverse around or over them. Likewise, the slat-design and 40-foot spacing between the fences proposed for the Oxnard Shores project are not expected to be a significant barrier to animal migration across the beach/dune interface. Sand placement onto the beach is not expected to result in the closure of coastal streams that support steelhead or that are otherwise open to the sea.

k. Construction time for the proposed projects is relatively short-term (the longest being up to one year for the Rincon Shoreline and Mugu Submarine Canyon projects) with most expected to be completed within six months of initiation. Daytime operations are expected, thus eliminating the potential for lighting effects and only short-term security fencing would be expected around laydown areas to protect equipment. Lighting of project-related vessels would be in accordance with USCG requirements and should onshore lighting be required, sources would be downward-pointing, low wattage, and reduced in number to the minimum required for safety and security. Consultation with resource agencies would be completed prior to developing an onshore lighting plan. Although noise will be generated by project-related equipment during grading and other construction-related activities,

onshore noise levels are not expected result in significant effects on terrestrial fauna. Likewise, offshore vessels, excavation of offshore sand material, the placement of rock, and the slurried sand passing through the pipeline will generate noise. The decibel levels are, however, not expected to exceed the levels equating to harassment of marine wildlife as established by NOAA Fisheries. Additional analysis of the effects of noise, based on documented levels for the specific equipment, will be provided in the CEQA document.

**Mitigation and Residual Impact:**

a., b., g. To reduce impacts discussed in (a), (b), and (g) the following measure is recommended.

**BIO-1**. Complete a pre-construction sensitive plant and animal surveys of all onshore and offshore sites and locate ground or seafloor activities to those areas devoid of sensitive plant and animal taxa. If impacts to special status species cannot be avoided, design a plan for the replacement or transplanting of the affected flora and translocation or new habitat creation for fauna following consultation with federal and state resources agencies.

c., d., h., i. To reduce impacts discussed in (c), (e), (h), and (i), the following measure is recommended.

**BIO-2.** Fence or otherwise delineate sensitive onshore habitats, vegetation, or individual trees and provide a buffer area around the drip line as appropriate. Locate pipeline or anchor line corridors to minimize the effects on rocky substrate and kelp beds or surfgrass areas.

f., i. To reduce impacts discussed in (f) and (i), the following measure is recommended.

**BIO-3.** Institute a zero-discharge policy for ballast water and other project-associated vessels throughout offshore operations.

f. To reduce impacts to (f) the following measure is recommended.

**BIO-4**. In accordance with NOAA Fisheries' and CDFG's *Caulerpa* Protocol (2008), complete a pre-construction *Caulerpa* survey of seafloor disturbance areas in accordance with sampling and reporting requirements.

To reduce the potential interference with commercial fishing activities that rely on the offshore biological resources, the following measure is recommended.

**BIO-5.** Coordinate nearshore activities with the Santa Barbara Fisheries Liaison Officer, local harbor masters, and commercial and recreational fishing personnel to identify and avoid critical fishing areas. Designate specific vessel transit corridors

and anchoring areas to preclude affecting commercially-important species and habitats.

k. To further reduce potential impacts discussed in (k), the following measure is recommended.

**BIO 6**. Schedule activities in accordance with resource agency requirements that preclude interference with migration, breeding, or nesting seasons of special status species.

## 4.5 Cultural Resources

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **Archaeological Resources** | | | | | |
| **a.** Disruption, alteration, destruction, or adverse effect on a recorded prehistoric or historic archaeological site (note site number below)? | | X | | | |
| **b.** Disruption or removal of human remains? | | X | | | |
| **c.** Increased potential for trespassing, vandalizing, or sabotaging archaeological resources? | | X | | | |
| **d.** Ground disturbances in an area with potential cultural resource sensitivity based on the location of known historic or prehistoric sites? | | X | | | |
| **Ethnic Resources** | | | | | |
| **e.** Disruption of or adverse effects upon a prehistoric or historic archaeological site or property of historic or cultural significance to a community or ethnic group? | | X | | | |
| **f.** Increased potential for trespassing, vandalizing, or sabotaging ethnic, sacred, or ceremonial places? | | X | | | |
| **g.** The potential to conflict with or restrict existing religious, sacred, or educational use of the area? | | | X | | |

**Setting:**

Cultural resources are districts, buildings, sites, structures, areas of traditional use, or objects with historical, architectural, archeological, cultural, or scientific importance. They include archeological resources (both prehistoric and historic), historic architectural resources (physical properties, structures, or built items), and traditional cultural resources

(those important to living Native Americans for religious, spiritual, ancestral, or traditional reasons).

For at least the past 10,000 years, the project area has been inhabited by Chumash Indians and their ancestors. The Chumash ranged from Los Angeles County to San Louis Obispo County and inland for more than 50 miles. Archaeological evidence indicates that Native Americans settled along the coastal regions of southern California more than 9,000 years ago. Ocean fishing and nearshore collection of shellfish were important for survival of aboriginal peoples as was hunting and trapping of large and small game. The Chumash were a highly successful and very stable society until colonization of southern California by the Spanish in the late eighteenth century. The introduction of diseases weakened and killed the majority of the population and those who survived blended into the Hispanic community. Today, several thousand Chumash people still live in southern California (Continental Shelf Associates 1995 as cited in California State Lands Commission, May 2004).

As reported in the Santa Barbara County Comprehensive Plan Conservation Element, the South Coast represents one of the most important archaeological regions in California. This is the area most densely occupied by the Chumash at the time of Spanish contact, and archaeological evidence confirms that it was so occupied for a considerable period of time. Site density in the area is very high, although the area has not been systematically surveyed. Probably 90 per cent of the remaining sites directly on the coast have been recorded. However, areas just a few hundred yards away from the coast are not well known, although they can be considered high density areas on the basis of what is known about the Santa Barbara-Goleta foothills. Within the Summerland area, the County has specifically identified archaeologically sensitive areas, although no area south of Highway 101 is identified as archaeologically sensitive.

The County of Ventura Resources Appendix of the General Plan identifies areas of cultural importance including archaeologically sensitive areas and historical sites. Over half of the coastline of Ventura County is identified by the County as either archaeologically sensitive or very sensitive; these areas are likely or highly likely to contain archaeological sites. The Oxnard Shores Sand Management Project is located within an area identified as archaeologically very sensitive, and although the South Rincon Parkway area is not identified as archeologically sensitive, there are several shoreline pockets north of Faria Beach that are considered to have high archaeological sensitivity.

Based on a review of the Santa Barbara County Comprehensive Plan Conservation Element no National Historic Landmarks are identified as being located anywhere on the coastline of Santa Barbara County (several are located inland). The “Indian Village Site” in located at Carpinteria State Beach, north of Rincon Point, is a California Historical Landmark. This was the location of a Chumash village, named Mishopshnow which was later renamed La Carpinteria during the expeditions of Portola (City of Carpinteria, April 2003). Historic sites as identified in the Conservation Element on the coastline of Santa Barbara County from north to south include the following.

- Gaviota Landing
- El Refugio State Beach
- El Capitan State Beach
- Dos Pueblos
- Whaling Camp (near the University of California Santa Barbara campus)
- Santa Barbara Lighthouse
- Miapu (prehistoric site City of Santa Barbara)
- Carpinteria Tar Pits (the State has one historical landmark here and the City of Carpinteria has designated four, [City of Carpinteria, April 2003])
- Indian Village site (north of Rincon Point)

Historical Landmarks in the coastal project area that are identified by the County of Ventura include the following:

- Point Mugu Recreation Area/State Park (on Route 1)
- Site of the original Hueneme Wharf (Southwest corner of Port Hueneme Rd. and Seaview St., Port Hueneme)
- Former Port Hueneme Slough (Part of Moranda Park, bordered by Santa Cruz St., Ventura County Railroad, Avalon St. and Flood Control, Port Hueneme)
- Port Hueneme Lightworks (light beam fixture in the lighthouse)

Because project operations would be conducted offshore, marine archaeological resources are of importance to the assessment. Due to the archaeological sensitivity of the general project area and the historical sea level rises it is possible that prehistoric sites exist in the marine environment. Additionally, historical resources such as remains of piers, wharfs and ships may exist within the general project area. A review of the California State Lands Commission's online Shipwreck Database for the Counties of Ventura and Santa Barbara yielded 31 and 69 shipwreck records, respectively. Based upon a comparison of reported shipwreck locations (latitude and longitude) and general project site locations, it appears that three of the reported shipwrecks are in proximity to specific project site locations. These three shipwrecks are all located offshore of the Ventura County coastline. Specific data for these shipwrecks is presented in Table 4.5-1.

**Table 4.5-1 Recorded Shipwrecks within the Project Areas**

| Ship's Name | Type | Year Built | Year Sunk | Tonnage | Engine | Latitude | Longitude | Project Site in Proximity to shipwreck |
|---|---|---|---|---|---|---|---|---|
| *Caeser Burns* | Two-Masted Schooner | Not reported | 1889 | Not reported | Not reported | 34°08′00′N | 119°13′00′W | West Hueneme Beach Renourishment Longevity |
| *Portland* | Barkentine | 1873 | 1906 | 493 | Sail | 34°09′00′N | 119°14′00′W | Oxnard Shores Sand Management Project (However, there is no offshore component to this project) |

| Ship's Name | Type | Year Built | Year Sunk | Tonnage | Engine | Latitude | Longitude | Project Site in Proximity to shipwreck |
|---|---|---|---|---|---|---|---|---|
| *Chetco* | Two-Masted Schooner | 1887 | 1918 | 103 | Not reported | 34°25′10′N | 119°36′00′W | Summerland Beach Sand Retention Pilot Project |

**Environmental Thresholds**:

The California Coastal Act of 1976 addresses impacts on archaeological resources. Policy 30244 requires reasonable mitigation measures where development would adversely impact archaeological resources. State CEQA Guidelines Section 15064.5 and 15126.4 define a significant cultural resource, either prehistoric or historic, as a "historical resource." A historical resource is defined as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).

2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

   A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

   B. Is associated with the lives of persons important in our past;

   C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   D. Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1[k] of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1[g] of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

County of Santa Barbara environmental thresholds for cultural resources are similar to those adopted or used by the other jurisdictions in which the project sites are located. The County Environmental Thresholds and Guidelines Manual contains guidelines for identification, significance determination, and mitigation of impacts to important cultural resources. Chapter 8 of the Manual, the *Archaeological Resources Guidelines: Archaeological, Historic and Ethnic Element,* specifies that if a resource cannot be avoided, it must be evaluated for importance under CEQA. As described above, CEQA Section 15064.5 contains the criteria for evaluating the importance of archaeological and historical resources. For archaeological resources, the criterion usually applied is: (D), "Has yielded, or may be likely to yield, information important in prehistory or history". If an archaeological site does not meet any of the four CEQA criteria in Section 15064.5, additional criteria for a "unique archaeological resource" are contained in Section 21083.2 of the Public Resource Code, which states that a "unique archaeological resource is an archaeological artifact, object, or site that: 1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; 2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person. A project that may cause a substantial adverse effect on an archaeological resource may have a significant effect on the environment.

A significant resource is one that a) possesses integrity of location, design, workmanship, material, and/or setting; b) is at least fifty years old, and c) is associated with an important contribution, was designed or built by a person who made an important contribution, is associated with an important and particular architectural style, or embodies elements demonstrating outstanding attention to detail, craftsmanship, use of materials, or construction methods.

**Impact Discussion:**

a-g Project-related ground-disturbing activities would be limited to the following.

- Oxnard Shores Sand Management Project - placement of fencing poles; and movement of accrued sand.

- Regional Sediment Management Stockpile and Processing Center - site preparation/grading for placement of office trailer and garage to house equipment; and placement and movement of sand stockpiles.

- Sand Retention Projects - placement of offshore underwater structures, temporary mooring buoy, temporary submerged pipeline and sand immediately

inshore of off-shore structures including initial grading of the sand along the beach to establish desired pre-fill profile.

- West Hueneme Beach Renourishment Longevity Improvement - placement of offshore underwater structures, temporary mooring buoy, temporary submerged pipeline and sand immediately inshore of off-shore structures including initial grading of the sand along the beach to establish desired pre-fill profile.

- North and South Rincon Parkway Shoreline Restorations - placement of offshore underwater structures, temporary mooring buoy, temporary submerged pipeline and sand immediately inshore of off-shore structures including initial grading of the sand along the beach to establish desired pre-fill profile

- Sand Capture at Mugu Submarine Canyon - placement of offshore, underwater sand retention structure, dredging of retained offshore sand.

In addition, effects to existing cultural resources could result from the dredging of sand to be used for beach nourishment projects identified above. Those sources include: the West Beach area of Santa Barbara Harbor, designated sand trap areas within Santa Barbara or Ventura Harbor, offshore borrow sites near Goleta or East Beach, and the Santa Clara River Delta between the 40 and 120 feet depth contours.

The placement of fencing poles at Oxnard Shores as part of a sand management project would be conducted using hand tools and would not require the installation of buried footings. As such, no archaeological resources would be exhumed and any potential impacts would be less than significant. Movement of accrued sand at Oxnard Shores is not expected to result in significant impacts to cultural resources in that the material to be moved is windblown sand that would not be expected to include significant cultural resources. However, should excavation extend into a depth that has been undisturbed a potentially significant impact to any cultural resources that may be within the disturbance area could result. The impacts described above would have the potential to result for any sand management project on coastal beaches within the project area due to the general cultural sensitivity of the area.

The development and operation of the Regional Sediment Management Stockpile and Processing Center as presently proposed is not expected to result in significant impacts to cultural resources because the site has been subject to substantial historical ground disturbance due to the road construction (Highway 101) and use as a materials storage and laydown site. Ground disturbance at this location is presently anticipated to be within the limits of previously disturbed earth materials. Additionally, the area is not identified on the County of Ventura Archaeological Sensitivity Map as a sensitive area. However, in the event that ground disturbance is proposed to extend below areas of fill and past disturbance, such disturbance would have the potential to result in potentially significant impacts to archeological resources due to the general sensitivity of the area. Development of a sand stockpiling and processing center elsewhere on the coast would have the potential to result in significant cultural resource impacts due to the general archaeological sensitivity of the project area, if excavations would extend into previously undisturbed material.

Due to the general cultural resource sensitivity of the coastal area, the development and operation of the sand retention projects (including operations at sand borrow sites) may result in significant impacts to archaeological resources if excavations for the establishment of pre-fill beach profiles extends into previously undisturbed areas. Additionally, the placement of underwater structures and anchoring may result in impacts to cultural resources such as shipwrecks (assuming they are considered historically significant). However, the only documented shipwreck in proximity to the proposed sand retention projects is the shipwreck *Chetco* which is in proximity to the Summerland Beach Sand Retention Pilot Project location. These potential impacts could result from similar sand retention projects located elsewhere in the project area.

The West Hueneme Beach Renourishment Longevity Project would have similar potential cultural resource impacts as the sand retention projects. This site is in proximity to the shipwreck *Caesar Burns*.

North and South Rincon Parkway Shoreline Restorations would have similar potential cultural resource impacts as the sand retention projects.

The Sand Capture at Mugu Submarine Canyon has the potential to result in cultural resource impacts associated with placement of the offshore structure and anchoring, as well as the excavation of retained offshore sand, should significant resources exist within the area of structure placement or sand excavation. However, no shipwrecks were identified from State Lands Commission data base to be in proximity to this site.

The projects as presently identified (specific locations) would not impact any designated Historical Landmarks or sites.

Any of the projects that would have the potential to result in the exposure of archaeological sites would also have the potential to increase trespassing on or vandalism of such sites. This is a potentially significant impact.

There are no presently known religious, sacred or educational uses of the land that project activities would conflict with. In the long-term, the project is intended to maintain beaches within the project area. This would be beneficial for any potential uses of the beaches for ethnic religious, sacred or educational purposes.

**Mitigation and Residual Impact:**

a.–f. The following mitigation measures apply to all projects that include ground disturbance:

**CR-1** A qualified archaeologist shall be retained by BEACON to prepare a Phase I Cultural Resources Assessment for any project that requires ground disturbance that may impact previously undisturbed soils. Based upon the findings of the Phase I Cultural Resources Assessment Report necessary mitigating measures shall be incorporated into the project to ensure that impacts to cultural resources are less than significant. Such measures may include

avoidance of identified cultural resource sites, capping of identified cultural resource sites, monitoring of excavations by qualified archaeologists and Native American representatives, additional Phase II assessment and/or Phase III Data Recovery Program. This measure shall be implemented prior to completion of final project plans. BEACON shall retain a copy of all relevant archaeological reports and shall be responsible to ensure that any necessary mitigating measures are incorporated into project designs.

**CR-2** In the event archaeological remains are encountered during grading or other earth disturbance, work shall be stopped immediately or redirected until a qualified archaeologist and Native American representative are retained by BEACON to evaluate the significance of the find pursuant to Phase 2 investigations of the County Archaeological Guidelines. If remains are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with County Archaeological Guidelines and funded by the applicant. This condition shall be printed on all building and grading plans. BEACON shall be responsible to ensure this measure is on all appropriate plans and shall spot check in the field.

**CR-3** If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the Ventura County Coroner as made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC).Commission (NAHC). This condition shall be printed on all building and grading plans. Beacon shall be responsible to ensure this measure is on all appropriate plans and shall spot check in the field.

The following measure shall be implemented for all projects that include an offshore component.

**CR-4** Prior to development of final plans, sidescan sonar, magnotometer, and bathymetric surveys shall be conducted within the areas of potential seafloor disturbance. If any targets are identified within the potential area of impact, the survey(s) results shall be reviewed by a qualified marine archaeologist. If necessary, a follow-up dive survey will be conducted to determine the nature of any targets identified from the seafloor surveys described above. The marine archaeologist will determine the potential cultural or historic significance of any targets, and measures to avoid or reduce potential impacts to any significant underwater cultural resources shall be developed by the marine archaeologist and incorporated into the project. The referenced surveys and archaeological evaluation shall be conducted prior to development of final project plans. BEACON shall retain all survey results and ensure that any necessary mitigation measures are identified on project plans and implemented in the field..

With the incorporation of the measures identified above, residual impacts would be less than significant.

## 4.6 Energy

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Substantial increase in demand, especially during peak periods, upon existing sources of energy? | | | X | | |
| **b.** Requirement for the development or extension of new sources of energy? | | | | X | |

**Setting:**

Private electrical and natural gas utility companies provide service to customers in Central and Southern California. Diesel fuel is available from several commercial sources throughout southern California and the electrical power and gas are expected to be available at or from nearby connections at onshore site for the Regional Sediment Management Stockpile and Processing Center facilities.

**Environmental Thresholds:**

All of the proposed projects will directly or indirectly use energy. However, no individual project is considered as having a significant impact because solar, wind and hydraulic energy sources are renewable and petroleum resources are considered a world-wide, national and state resource that is beyond the scope of local governments to effectively manage and control. Additionally, the Uniform Building Code regulates construction of structures with regard to energy efficiency (Ventura County, 2006).

**Impact Discussion:**

Due to the nature of the proposed projects, energy use is expected to be minimal and would have a negligible effect on regional energy supplies.

**Mitigation and Residual Impact:**

No mitigation is required. Residual impacts would be less than significant.

## 4.7 Fire Protection

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Introduction of development into an existing high fire hazard area? | | | | X | |
| **b.** Project-caused high fire hazard? | | | X | | |
| **c.** Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting? | | X | | | |
| **d.** Introduction of development that will hamper fire prevention techniques such as controlled burns or backfiring in high fire hazard areas? | | | | X | |
| **e.** Development of structures beyond safe Fire Dept. response time? | | | | X | |

**Setting:**

Fire protection services are provided within unincorporated Ventura County by the Ventura County Fire Department. The closest fire station to the proposed Regional Sediment Management Stockpile and Processing Center site is Station 25 located in the Rincon area at 5674 West Pacific Coast Highway, about 1 mile south of the site. According to the County Fire Department web site (January 12, 2010), the Rincon Fire Station is staffed daily by three firefighters and the apparatus serving this station includes: an engine (Engine 25); a reserve engine (Engine 125); a 2,500-gallon water tender (Water Tender 25); and a 12-passenger utility van (Utility 125). Because of the proximity of Station 25 to the Regional Sediment Management Stockpile and Processing Center, this site is located in an area with an adequate response time from fire protective services (VandenBossche, personal communication).

**Environmental Thresholds:**

Project distance from a fulltime, paid fire department is considered a significant impact if the project is in excess of five miles, measured from the apron of the fire station to the structure pad of the proposed structure. Fire sprinklers will mitigate the impact and are required as per Ventura County Ordinance 14.

If response time would be in excess of 12 minutes, it would be considered a significant impact.

**Impact Discussion:**

a. With the exception of the Regional Sediment Management Stockpile and Processing Center, the locations of the project components are on the beach or offshore, and are therefore not located within High Fire Hazard Areas. The

Regional Sediment Management Stockpile and Processing Center is secluded by geography and U.S. Highway 101 and is not located in a high fire area.

b. The only fire hazards for the projects other than the Regional Sediment Management Stockpile and Processing Center are associated with the unlikely event of an equipment, vehicle or vessel fire. Vessels would contain fire suppression equipment in accordance with existing regulations local, state and federal regulations. The Regional Sediment Management Stockpile and Processing Center may have small quantities of fuel or other chemicals on site, as well as petroleum-fueled equipment. However, there are no characteristics of this proposed facility that would create a high fire hazard.

c., e. The only proposed development that may require fire suppression services is the Regional Sediment Management Stockpile and Processing Center. However, this site is currently not provided with water service. According to the Ventura County Fire Department, adequate access (usually 125 feet), water (1,250 GPM) and sprinklers are required for all buildings other than those classified as "U" occupancies (accessory structures). Should the Regional Sediment Management Stockpile and Processing Center be permitted as a use, all necessary fire prevention and suppression that would be required by the County of Ventura Fire Department would be made a condition of such permit. If five or more gallons of flammable or hazardous materials are to be stored at the site, the operator will be required to comply with the County Fire Code Permit Requirements.

d. The project does not include any elements that would hamper fire prevention techniques and ingress/egress to the Regional Sediment Management site would be expected to consist of paved roads used by the trucks to deliver and transport sand.

**Mitigation and Residual Impact:**

a., b., d., e. No significant impacts are identified. Therefore, no mitigation is necessary.

c. The following measure would reduce the fire hazard associated with the lack of water at the Regional Sediment Management Stockpile and Processing Center site to a less than significant level.

**F-1** The Regional Sediment Management Stockpile and Processing Center site design shall incorporate necessary water infrastructure, fire prevention and access as required by County Fire regulations in place at the time of development. These fire protection measures shall be in place prior to occupancy.

## 4.8 Geologic Processes

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards? | | X | | | |
| **b.** Disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading? | | | X | | |
| **c.** Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise? | | | X | | |
| **d.** The destruction, covering or modification of any unique geologic, paleontologic or physical features? | | | X | | |
| **e.** Any increase in wind or water erosion of soils, either on or off the site? | | X | | | |
| **f.** Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake? | X | | | | |
| **g.** The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent? | | | | X | |
| **h.** Extraction of mineral or ore? | | | | X | |
| **i.** Excessive grading on slopes of over 20%? | | | | X | |
| **j.** Sand or gravel removal or loss of topsoil? | | | X | | |
| **k.** Vibrations, from short-term construction or long-term operation, which may affect adjoining areas? | | | X | | |
| **l.** Excessive spoils, tailings or over-burden? | | | | X | |

**Setting:**

The project area is the coastal and nearshore zones (area between the 100 feet isobath offshore to 100 feet inshore of the MLLW line) between Point Conception to the north and west and Point Mugu to the south and east. The area is located on the northern edge of the Santa Barbara Channel in the western part of the Transverse Range Physiographic Province. This region is characterized by east-west oriented topographic and structural elements. The Santa

Barbara Channel is the submerged western extension of the Ventura Basin, and is bounded on the north by the Santa Ynez Range and on the south by the northern Channel Islands. Total relief from the western portion of the Santa Ynez Mountains, well inland of the project area, to the floor of the Santa Barbara Channel, substantially further offshore than the project area, is about 6,000 feet.

The terrestrial portion of the project area is generally characterized by flat, fluvial deposits to the east (Ventura/Oxnard plain) and steeper cliffs fronting sandy beach areas to the west. The shoreline within the project area ranges from sand beaches to natural, wave-cut and sheltered rocky platform, with some areas of man-made “hardened shores” particularly around the major harbors entrances. The mixture of sedimentary and rock habitats continues offshore, where the solid substrate is less common than the sedimentary habitats. Nearshore rocky reef areas are scattered throughout the project area and includes relatively extensive areas at offshore Naples, Carpinteria, and Emma Wood State Beach. Estuaries, generally associated with the mouths of rivers or streams, are also present along the shoreline and include Devereux and Goleta sloughs in Santa Barbara County and Carpinteria Marsh and Mugu Lagoon in Ventura County.

The Santa Barbara Channel is underlain by a thick sequence of upper Mesozoic and Tertiary marine and continental sediments resting on basement rocks of the Jurassic-age Franciscan complex. It is bounded on the north and south by major east-west trending fault systems that include the Santa Ynez fault system to the north of the Santa Barbara Channel which is over 90 miles long and was responsible for the uplift of the Santa Ynez Mountains in late Tertiary to Quaternary time. To the south is the Santa Monica-Santa Cruz Island fault system. Both the Santa Ynez and Santa Monica-Santa Cruz Island fault systems are characterized by left-lateral strike-slip and reverse separations along their lengths. In addition to these two major fault systems, numerous left-oblique and reverse faults and steep-limbed folds occur within and adjacent to the Santa Barbara Channel.

The sedimentary bluffs that parallel Highway 101 along the Rincon portion of the project area have occasionally failed and resulted in mudslides onto adjacent areas, including a recent event at La Conchita in eastern Santa Barbara County. Bluff erosion along the shoreline of the western portion of the project area has also been recorded.

**Environmental Thresholds:**

Santa Barbara County’s Adopted Thresholds and Guidelines Manual, indicate that impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

1. The project site or any part of the project is located on land having substantial geologic constraints. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.

2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.

3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.

4. The project is located on slopes exceeding 20% grade.

Ventura County's existing significance criteria for geologic impacts include the proximity of a project to a fault rupture hazard or liquefaction-susceptible area; developments where expansion index is greater than 20; and from landslide or mudflow effects in areas where hillside slopes exceed 10%.

**Impact Discussion**:

a. The selected location for the Regional Sand Management site could be subjected to landslides originating from the bluff immediately to the north. The region has been subjected to previous slope failures and personnel located within the site could be exposed to the effects of mudslides or debris flows.

b. The "pre-filling" of eroded beaches with sand is integral to the sand retention pilot projects and other proposed restoration projects. This pre-filling will result in the placing of sand onto existing beaches, thus covering the existing sediment. Grading will be limited to the contouring of the Regional Sediment Management Stockpile and Processing Center site and to the spreading of sand over existing sand beaches. Although the placing of sand would be considered fill, those activities are not expected to result in significant effects because the material used in the fill is identical to that which currently exists.

c. Although the proposed projects are designed to "change the topography" of the sand beach areas through the addition of sand, those changes are not permanent. The beach enhancement projects are designed to reduce the effects of erosion related to normal wave action and to protect upland areas from the effects of sea level rise. Predictions about the long-term effects of global climate change include rising sea levels due to the melting of glaciers and thermal expansion. Rising sea-levels caused by global climate change could increase the rate of coastal-bluff retreat due to scouring of the base of bluffs. Although the exact rate of potential sea level rise cannot be determined, the Intergovernmental Panel on Climate Change predicts that sea levels could possibly rise between 1.6 to 3 feet by the year 2100. The minor grading and subsequent topographic changes at the Regional Sediment Management Stockpile and Processing Center site are not considered significant, but will be permanent.

d. As described in (a) above, the placement of sand on the existing sand beaches is not expected to affect any unique geologic or paleontological features. No unique rock features are expected in the onshore location for the Regional Sediment

Management Stockpile and Processing Center site and therefore no significant effects are expected.

e. The proposed projects are designed to reduce erosion from existing beaches and to provide a site for the temporary storage of sand for use on eroded beaches. Drainage at the Regional Sediment Management Stockpile and Processing Center site is unknown and, if not altered to minimize flows within the facility, could result in an increase in erosion. The significance of those flows and subsequent erosion is not known. The short-term use of equipment laydown/storage areas and access routes to the beach could result in an increase in erosion if no mitigation measures are incorporated. Designing those sites to drain correctly (away from streams and other waterways), minimizing the size of each site, and restoring vegetation and drainage to pre-use conditions following the completion of construction activities is expected to reduce potential impacts to less than significant.

f. The objective of most of the proposed projects is to increase the amount of sand on currently eroded beaches or to maintain existing sand levels for an extended period of time. As such, the projects will ideally result in significant, but beneficial, increases in sand on those beaches, but are not expected to increase siltation or deposition into existing waterways. The sand will eventually be transported into the ocean, however the material used to restore the beaches will have originated from the ocean or was ultimately destined to be deposited into the ocean. While a change in the beaches is expected, that change is expected to be beneficial.

g. ,i. The proposed project does include the placement of septic tanks, the extraction of mineral or ore, or grading on slopes in excess of 20 per cent.

j. The extraction of sand will be from sources that have been pre-approved and permitted and will be limited to those that can provide the appropriate grain-size for beach nourishment. The amounts proposed represent a small percentage of sand that is annually transported into the Santa Barbara Channel and the sand that is deposited onto the beaches will eventually be returned to the ocean and/or re-used. Additional quantitative data on the amounts of sand to be used vs. the amount of available sand will be provided in the CEQA document.

k. The operation of grading equipment on the beach is not expected to result in substantial vibrations that could affect nearby structures or sensitive receptors. The sand is expected to absorb most of the vibrations, thus limiting the transmission of vibrations to surrounding areas. Offshore vibrations generated by vessel activities and rock placement are expected to be low and are not expected to be transmitted to onshore areas or nearby structures.

l. No excess sand or rock is expected from the construction of the beach enhancement projects; the amount of material will be specific to size of the offshore and beach areas. Minor grading and the generation of some spoil at the Regional

Sediment Management Stockpile and Processing Center site is expected to be less than significant. Excess soil will either be re-used as foundation material at the site or will be disposed of at a permitted onshore facility.

**Mitigation and Residual Impact:**

a. The following mitigation measures would reduce the project's potential impacts associated with slope failure to a less than significant level.

**GEO-1** Complete a study to analyze the potential for slope failure at the Regional Sediment Management Stockpile and Processing Center site and design the appropriate barriers or protective devices to minimize the potential effects of mudflows or landslides. A Geotechnical Engineer shall be retained to complete an evaluation of the potential for slope failure at the Regional Sediment Management Stockpile and Processing Center site and recommend appropriate barriers or other protective devises if necessary to minimize potential adverse effects of mudflows or landslides. Protective measures if warranted shall be included in the project design.

b., c, d. No significant impacts were identified. Therefore, no mitigation is required.

e., f. The following mitigation is recommended to reduce impacts to less than significant for items (e). However, item (f) requires further evaluation.

**GEO-2** Select construction laydown sites and access routes to minimize vegetation removal and erosion from stormwater runoff and prepare a grading and drainage plan, and a SWPP prior to use. Assure drainage from the sites is away from existing streams and waterways and restore each site to pre-use condition, including replanting if needed, following completion of construction activities. Complete a drainage plan for the Regional Sand Management site and incorporate appropriate measures to assure proper site drainage and erosion control during facility operation.

With the incorporation of these measures and additional mitigations to be identified in the CEQA document, it is expected that residual impacts would be less than significant.

## 4.9 HAZARDOUS MATERIALS/RISK OF UPSET

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)? | | X | | | |
| **b.** The use, storage or distribution of hazardous or toxic materials? | | X | | | |
| **c.** A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions? | | X | | | |
| **d.** Possible interference with an emergency response plan or an emergency evacuation plan? | | | | X | |
| **e.** The creation of a potential public health hazard? | | X | | | |
| **f.** Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)? | | X | | | |
| **g.** Exposure to hazards from oil or gas pipelines or oil well facilities? | | X | | | |
| **h.** The contamination of a public water supply? | | | | X | |

### Setting:

Much of the coastline of Ventura and Santa Barbara counties was historically developed with oil and gas facilities. Beaches in the project area are subject to periodic inundation with tar balls, ropes and flecks that create a nuisance for beach goers as they stick to feet and footwear. This material originates from natural tar seeps that occur onshore (e.g., Tar Pits Park in Carpinteria) and offshore in the area. Some of this material may originate as a result of offshore oil and gas operations since the chemical fingerprint of tar from natural seeps in the area is similar to that produced at certain offshore platforms (U.S. Geological Survey, 2004).

### Environmental Thresholds:

The County of Santa Barbara's public safety risk thresholds apply to specific types of projects that do not include projects with few risk factors such as sediment management. County of Ventura thresholds for hazardous materials are determined on a case by case basis depending upon the types of hazardous materials involves, amounts, and proximity of hazardous materials to

receiving waters or other significant environmental resources. The project has been evaluated with respect to the level of risk to human health and environment associated with both construction and operation.

**Impact Discussion:**

a. The project sites are all located on beaches and offshore with the exception of the Regional Sediment Management Stockpile and Processing Center. None of the project beach and offshore areas are located in close proximity to existing industrial uses. However, much of the coastline of Ventura and Santa Barbara counties was historically developed with oil and gas facilities. Because the area of impact for the sand management projects would be surficial, it is expected than any residual hazardous materials associated with these historic uses would have been leached from the sand due the intervening years of precipitation and wave action. Beaches in the project area are subject to periodic inundation with tar balls, ropes and flecks that create a nuisance for beach goers as they stick to feet and footwear.

A search of the on-line State of California Department of Toxic Substances Control (DTSC) EnviroStor database was conducted for the area Regional Sediment Management Stockpile and Processing Center area. The database provides an inventory of the following types of regulated sites: Federal Superfund; State Response; Voluntary Cleanup; School Cleanup; Evaluation; School Investigation; Military Investigation; Corrective Action; Hazardous Waste Permit; Geotracker Leaking Underground Fuel Tanks (LUFT), and Geotracker Spills, Leaks, Investigations and Cleanup (SLIC). No regulated sites were identified within a 0.5 mile radius of the Regional Sediment Management Stockpile and Processing Center site. The closest site as recorded on the database is a State Response site associated with the Seacliff Train derailment which occurred in 1991 about 1 mile south of the proposed site. During this incident, a Southern Pacific Transportation Company train derailed beneath the U.S. Highway 101 overpass at the community of Seacliff derailed spilling Hydrazine. This site has been remediated satisfactorily under DTSC oversight. No State “geotracker” sites were identified within a 0.5 mile radius of the Regional Sediment Management Stockpile and Processing Center site.

There is no evidence that hazardous materials were used, stored or spilled on the identified Regional Sediment Management Stockpile and Processing Center site in the past that would constitute a hazard to human health or the environment. However should other sites be selected for similar use, there is a potential that such conditions could exist at the site resulting in potentially significant impacts.

b. The project would result in the use of fuels and lubricants for the operation and maintenance of vehicles, vessels and equipment. Additionally, the Regional Sediment Management Stockpile and Processing Center may store quantities of such material on site. However, it is assumed that any project-related facility that would store or handle such materials in quantities that would have a significant

potential of creating a hazard would comply with state regulations relating to hazardous materials such as the Hazardous Materials Business Plan (HMBP) Program as described further below.

The Ventura County Certified Unified Program Agency (CUPA), part of the Ventura County Resources Management Agency Environmental Health Division, and County of Santa Barbara CUPA, part of the Santa Barbara County Fire Department, provide regulatory oversight for the HMBP Program. California Health and Safety Code, Chapter 6.95 and California Code of Regulations, Title 19 requires businesses that store, use, or handle hazardous materials at or above specified threshold amounts to provide the CUPA with a HMBP. Hazardous materials are items which are toxic, flammable, corrosive, reactive, explosive, oxidizers, or radioactive. This includes substances which:

- require a Material Safety Data Sheet (MSDS) (California Labor Code, Section 6360); or,

- are listed as a radioactive material (Code of Federal Regulations, Title 10, Appendix B); or,

- are a hazardous waste (California Health and Safety Code, Chapter 6.5).

A HMBP is required for individual hazardous materials at or above the following threshold amounts.

- 55 gallons of liquid

- 500 pounds of solid

- 200 cubic feet of compressed gas

- Extremely Hazardous Substances over the threshold planning quantities

- Radioactive material in quantities requiring an emergency plan as required in Code of Federal Regulations, Section 10, Parts 30, 40, and 70

New facilities must submit a HMBP to the CUPA within 30 days after bringing hazardous materials onsite or taking ownership at an existing HMBP facility. The HMBP includes information such as: Business Owner/Operator Identification Form; Chemical Description Form; and Emergency Response Contingency Plan Form. The HMBP must provide the CUPAs, local fire agencies, and the public with information on hazardous materials at businesses and most government facilities and ensure that an emergency response contingency plan is in place for the facility.

The project has the potential to result in the distribution of hazardous or toxic material in the event that the sand source used for the purposes of beach back-fill and other uses described herein includes quantities of hazardous materials that are

above regulatory federal, state and local thresholds for such uses. Identified potential sources of fill include unidentified onshore sites, as well as Santa Barbara and Ventura Harbors, offshore borrow sites near Goleta or East Beach, or the Santa Clara River Delta. This is a potentially significant impact to human and environmental health.

c. The project proposes the installation of underwater structures which would require the use of marine construction equipment. Anchoring of barges or other vessels, or improper placement of the structural materials has the potential to cause a rupture of oil or gas pipelines that may extend through the area. Based upon a review of the Santa Barbara County Energy Division Map (June 5, 2009) numerous pipelines extend onshore from offshore oil and gas platforms in the Santa Barbara Channel including in the areas of, but not limited to, Carpinteria, La Conchita, Rincon and Mandalay. The potential risk of release of hazardous substances in the event of a pipeline rupture is considered a significant impact.

As indicated above, marine vessels and equipment would be used for project construction and operation. As such there is a potential for an accidental release of fuel, oil or lubricants at sea. This is considered a potentially significant impact associated with all sand/sediment management projects that have an offshore component. Similarly, many of the proposed projects include the operation of equipment on the beach, spills of hazardous or toxic materials in this environment is also considered a potentially significant impact.

d. The projects would not be expected to cause the blockage of any emergency routes, therefore, it is not expected to interfere with emergency response.

e. All of the proposed projects with the exception of the Regional Sediment Management Stockpile and Processing Center would require the use of heavy equipment on public beaches, thereby resulting in potential safety hazards to beach-users. It is anticipated that such equipment would be large and loud enough to be easily noticeable by the public. Additionally, such equipment would not be traveling at high speeds. None-the-less some level of hazard and potential public safety impact is possible resulting in a potentially significant impact. (In recent history a sunbather on a public beach was accidentally killed by an emergency vehicle traveling on a public beach within the project region.)

f. The project would not introduce a substantial population to any new site over the long-term. Construction-related workers would be introduced to the sites on a short-term basis (in some cases periodically). A small number of workers would be required to operate the area Regional Sediment Management Stockpile and Processing Center site. There are no elements of the project, other than those addressed in the other items contained under the heading of Hazardous Materials/Risk of Upset that are expected to result in significant public safety impacts due to development in proximity to industrial activity, toxic sites, etc. (see a.

through c) with the exception of operations associated with the Sand Capture at Mugu Submarine Canyon, described as follows.

The Sand Capture at Mugu Submarine Canyon would take place on and in the vicinity of the Naval Base Ventura County at Point Mugu. Numerous Base-related hazards need to be considered relative to the construction and operational phases of that project. These include, but may not be limited to the following.

- Exposure to radiation from an existing radar test facility.
- Exposure to hazards related to live-fire operations at a small arms range, and trap and skeet ranges.
- Interference with missile testing operations from two missile launch pads in the area of the proposed sand trap as it extends to the east.
- Exposure of offshore crew to noise generated from Base aircraft operations create. (Additional discussions in the Noise Impacts, Section 4.12)

Workers conducting operations associated with construction of the offshore structures, prefilling of the beach or dredging during the operational life of the structures could be subjected to significant health and safety impacts from radiation, live ammunition, and other Base-related hazardous conditions unless operations were closely coordinated with the all existing operational divisions at the Base (e.g., Navy and Naval Air Warfare Center Weapons Division Point Mugu) at the times of project implementation.

g. Please see item c.

h. There are no elements of the project that are expected to result in the contamination of a public water supply as the project is marine/beach oriented.

**Mitigation and Residual Impact:**

a. The following mitigation measure would reduce the potential impact in (a) to a less than significant level:

**HAZ-1** Any future site selected for use in the BEACON Coastal Regional Sediment Management Plan shall be evaluated by a qualified environmental professional for the likelihood of past or present uses, storage or discharge of hazardous material that could potentially cause harm to human or environmental health. If upon initial review of the site, it appears that such uses may have occurred, a registered environmental assessor shall conduct a Phase I Site Assessment for the subject site. The recommendations of the Phase I shall be implemented, which may require a Phase II Assessment and possibly Phase III remediation, if the selected site is to be used. Remedial activities, if necessary, may include in-situ treatment of soil to reduce levels of contaminant to within regulatory levels, removal and appropriate disposal of contaminated soil. etc.

b. The following mitigation measures would reduce the potential impacts in (b) to a less than significant level:

**HAZ-2** A Sediment/Sand Analysis Plan (SAP) protocol will be developed in coordination with permitting authorities including the U.S. Army Corps of Engineers, Regional Water Quality Control Board, Ventura County Environmental Health or Santa Barbara County Fire Department as appropriate. The SAP shall define constituents of concern, threshold criteria, sampling methodology, and reporting requirements. Sampling of sediment/sand shall be conducted prior to use and no material shall be placed on beaches or in the ocean that has not been determined to be suitable for such use based upon the criteria of the SAP.

c., g. The following mitigation measures would reduce potential impacts in (c) and (g) to a less than significant level.

**HAZ-3** Prior to each offshore operation, resources agencies including the State Lands Commission, Minerals Management Service and Santa Barbara County Energy Department shall be consulted to identify the location of any pipelines within the potential area of impact for the project operation. Anchoring plans, depicting the location of underwater facilities, geophysical features, the proposed structure placement, and proposed anchorages and anchor locations shall be prepared. The Anchor Plans shall be designed to avoid hazardous or environmentally sensitive resources and shall be reviewed and approved by the permitting agencies including but not limited to the State Lands Commission and shall be implemented in the field by the project contractor.

**HAZ-4** Prior to each offshore operation, a Marine Safety Plan (MSP) will be developed specifically to support the marine operations that will take place for each sand/sediment nourishment project. The purpose of this plan is to provide a precise set of procedures and protocols that will be used when executing the marine operations. The primary concerns to be addressed by the MSP are personal safety, environmental safety and vessel safety. The MSP should include a description of at least the following elements:

- Training and Implementation,
- Marine Project Location,
- Marine Operations Protocols,
- Critical Operations and Curtailment Plan,
- Marine Communications Plan,
- Marine Transportation Plan, and
- Navigational Marking and Lighting Plan

The MSP will be distributed to all appropriate regulatory agencies, construction managers, environmental monitors, and support vessel operators and radio operators. In addition, a copy of the MSP will be placed on each vessel utilized in the project.

**HAZ-5** Prior to each offshore operation, the marine contractor shall have in place an approved project-specific oil spill prevention and contingency plan addressing spill prevention and spill response measures for any accidental release of hydrocarbons. The plan shall identify key points of contact, vessels and equipment to be used in the project, contractors, schedules, and procedures. The plan shall be prepared and submitted to the appropriate regulatory agencies for approval.

**HAZ-6** Prior to each onshore operation, the contractor shall have in place, a project-specific oil spill prevention and contingency plan addressing spill prevention and spill response measures for any accidental release of hydrocarbons. The plan shall include the provision that all fueling and maintenance of project equipment shall take place in a designated area off the beach. The designated area should have a non-porous surface for the easy clean-up of spills. The plan shall be submitted to the applicable regulatory agencies and implemented during onshore operations.

d., h. No significant impact would result. Therefore, no mitigation is required.

e. The following measure would reduce hazards to beach-users created by the operation of heavy equipment on public beaches.

**HAZ-7** All locations that require the use of vehicles or equipment on the beach will be posted at least one week in advance. Postings shall be in conspicuous locations and shall include the term “WARNING” in large letters, a brief description of proposed operations and the anticipated dates of operation of equipment on the beach. Upon completion of beach operations the signs shall be removed.

**HAZ-8** All operators of vehicles and equipment working on public beaches shall operate such vehicles and equipment in a safe manner appropriate to the setting. This requirement shall be included in all requests for bids for beach work associated with the project.

f. The following mitigation measure would reduce the impacts in (f) to reduce potential worker safety hazards associated with the locations of the Sand Capture at Mugu Submarine Canyon Project on and in proximity to the Naval Base Ventura County at Point Mugu.

**HAZ-9** The scheduling of construction and operational aspects of the Sand Capture at Mugu Submarine Canyon Project shall be coordinated closely with all military divisions operating at the Naval Base Ventura County at Point Mugu. No project construction or operational task that would result in personnel to be or in the vicinity of the Base shall be conducted without previous clearance from the commanders of all operating military divisions at the Base.

## 4.10 Historic Resources

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Adverse physical or aesthetic impacts on a structure or property at least 50 years old and/or of historic or cultural significance to the community, state or nation? | | X | | | |
| **b.** Beneficial impacts to an historic resource by providing rehabilitation, protection in a conservation/open easement, etc.? | | | | X | |

**Setting:**

Please see discussion under Section 4.5, Cultural Resources.

**Environmental Thresholds:**

Please see discussion under Section 4.5, Cultural Resources.

**Impact Discussion:**

a. Please see discussion under Section 4.5, Cultural Resources.

b. The project does not include rehabilitation or restoration of historic structures.

**Mitigation and Residual Impact:**

a. Please see discussion under Section 4.5, Cultural Resources.

b. No impacts are identified. No mitigations are necessary.

## 4.11 Land Use

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Structures and/or land use incompatible with existing land use? | X | | | | |
| **b.** Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | X | | | | |
| **c.** The induction of substantial growth or concentration of population? | | | X | | |
| **d.** The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project? | | | | X | |
| **e.** Loss of existing affordable dwellings through demolition, conversion or removal? | | | | X | |
| **f.** Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | | | | X | |
| **g.** Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere? | | | | X | |
| **h.** The loss of a substantial amount of open space? | | | | X | |
| **i.** An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.) | | | | X | |
| **j.** Conflicts with adopted airport safety zones? | | | | X | |

**Setting:**

The entire BEACON project area is within the State-designated coastal zone. "Coastal zone" means that land and water area of the State of California ... extending seaward to the

state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards. The coastal zone, which was specifically mapped by the Legislature, varies in width (on land) from several hundred feet in highly urbanized areas up to five miles in certain rural areas, and offshore the coastal zone includes a three-mile-wide band of ocean. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone.

Land underlying the State of California's navigable and tidal waterways are known as "sovereign lands". On a state-wide basis, these lands include the beds of 1) more than 120 rivers, streams and sloughs; 2) nearly 40 non-tidal navigable lakes, such as Lake Tahoe and Clear Lake; 3) the tidal navigable bays and lagoons; and 4) the tide and submerged lands adjacent to the entire coast and offshore islands of the State from the mean high tide line to three nautical miles offshore. These "sovereign lands", which include the tidal and submerged lands of the project area are managed by the California State Lands Commission (CSLC). The State holds its "sovereign lands" in Public Trust. They can only be used for public purposes consistent with provisions of the Public Trust such as fishing, water dependent commerce and navigation, ecological preservation and scientific study.

The project area is within the jurisdiction of two counties and several cities, the CSLC and the CCC. The relevant planning documents of these agencies include: the California Coastal Act; city and county general plans, coastal plans, (area and community plans as applicable), zoning ordinances; and the Public Trust Policy of the CSLC. These regulatory and planning documents are described as follows. (A discussion of specific policies is provided in Section 9.0 below.)

The Coastal Act of 1976 (see Division 20 of the Public Resources Code, Chapter 3) contains policies which constitute the statutory standards applied to planning and regulatory decisions made by the CCC and by local governments, pursuant to the Coastal Act. The specific policies of the California Coastal Act address issues such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works. Broadly, the policies mandate that an equal opportunity to enjoy coastal resources shall be provided through:

1. Maximum public access for all economic segments of society shall be provided;
2. Coastal areas suitable for recreational use should be preserved for that use;
3. Marine resources shall be maintained and enhanced, where feasible, and restores;
4. Sensitive habitat, prime agricultural land, and archaeological resources are to be preserved;
5. New residential and commercial development is to be concentrated in existing developed areas and consistent with service capacities; and

6. Industrial developments, including coastal-dependent and energy facilities, are also to be concentrated and consolidated as much as possible.

Priorities are established for competing uses of coastal resources. Preservation of sensitive habitat areas and coastal resources, and the provision of coastal access are given the highest priority. Preservation of land suitable for agriculture is also given a high priority. In areas that are determined to be neither sensitive areas or suitable for agriculture, coastal-dependent uses, including public recreations uses, coastal-dependent industries and energy-facilities receive the highest priority. Other private development is permitted on areas not reserved for habitat preservation, agriculture, public recreation, or coastal-dependent uses. Within areas for private development, visitor-servicing commercial uses receive priority over private developments. These priorities are to be implemented by the Local Coastal Programs adopted by the coastal cities and counties as reviewed and certified by the CCC.

Cities and counties with certified local coastal programs have permit authority over coastal land use decisions within their jurisdiction (to the mean high tide line). However, certain land use decisions within the coastal zone remain appealable to the CCC. The CCC retains original permit jurisdiction between mean high tide line and extending seaward to the state's outer limit of jurisdiction, including all offshore islands. Such development includes:

1. Developments approved by the local government that are located between the ocean and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or the mean high tide line of the beach where there is no beach, whichever is the greater distance.
2. Development approved by the local government not included in paragraph 1 of this section located on tidelands, submerged lands, public trust lands within 100 feet of any wetland, estuary, stream or within 300 feet of the top of the seaward face of any coastal bluff.
3. Any development by a coastal county that is not designated as a principal permitted use under the zoning ordinance or zoning district map approved pursuant to Chapter 6 of the California coastal Act commencing with Section 30500.
4. Any development which constitutes a major public works or major energy facility.

The General Plans and Coastal Plans of the cities (Santa Barbara, Oxnard and Port Hueneme) and counties (Santa Barbara and Ventura) are applicable to specific projects which are located within the jurisdiction. As are community or area plans pertinent to specific project locations (e.g., Montecito Community Plan Update for the Butterfly Beach area). Should future projects not specifically identified herein, be located in other coastal cities of the BEACON project area (e.g., Goleta, Carpinteria, San Buenaventura) the General Plans and Coastal Plans of the respective jurisdictions would apply. Each of the General Plans and Coastal Plans include policies which would apply to individual projects. As implied above, Coastal Plan policies are based upon the policies of the California Coastal Act. While General Plan Policies may address some of the same issues as Coastal Plan policies, generally, Coastal Plan policies are more restrictive/conservative. Where policies conflict, the more conservative policy takes precedence. In considering approval of a specific project, the decision-maker must find that the project in substantial conformity with the applicable land use policies. Projects that are not

consistent with the underlying land use designation identified in the General Plan require a General Plan Amendment to be approved.

As with the General Plans and Coastal Plans, the Zoning Ordinances which govern allowable land uses by zone, of the jurisdictions that a specific project is located also apply to the proposed uses. Proposed uses that are not consistent with the underlying zoning of a project site, may be conditionally permitted or may require a variance or zone change in order to be approved.

The Public Trust Policy addresses: the public trust doctrine, CSLC authority and implementation of the public trust doctrine, and the relationship of the CSLC to granted lands. In summary the principals of the public trust doctrine define the public trust lands, the allowable uses of public trust lands and ideal that public trust lands must be used to serve statewide, as opposed to purely local, public purposes.

Development within the coastal zone may not commence until a coastal development permit has been issued by either the CCC or a local government that has a Commission-certified local coastal program (LCP). After certification of an LCP, coastal development permit authority is delegated to the appropriate local government, but the Commission retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The CCC also has appellate authority over development approved by local governments in specified geographic areas as well as for certain development.

As indicated above, the onshore portion of the BEACON project area lies within the land use jurisdictions of: unincorporated County of Santa Barbara, City of Goleta, City of Santa Barbara, City of Carpinteria, unincorporated County of Ventura, City of San Buenaventura (Ventura), City of Oxnard, and City of Port Hueneme. The specific projects identified in the Project Description and considered in this document are within the jurisdictions as presented in Table 4.10-1. (It is assumed for beached-based projects that project activities would be both above and below the mean high tide line).

The project area is between the 100 foot (MLLW) isobath and 100 feet inshore of the MHTL extending from Point Conception to the north and Point Mugu to the south. A description of the individual project areas and surroundings is provided below, along with identification of associated land use designations.

Oxnard Shores Sand Management Project. This project is located on the beach southwest of the intersection of West Fifth Street and Harbor Boulevard, in the City of Oxnard. The neighborhood immediately east of the proposed sand fencing area is residential (Oxnard Shores Neighborhood). (Some homes are also located to the north and south of the sand fencing and recycling areas.) The area immediately east of the proposed dune management area is open space with the Mandalay (Colony) property located further east which is a residential and visitor-serving commercial use. The Mandalay State Beach Park is located north of the project area.

**Table 4.10-1 Jurisdictional Authority of BEACON Project Sites**

| | Jurisdiction | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project** | **Santa Barbara Co.** | **City of Santa Barbara** | **Ventura Co.** | **City of Oxnard** | **City of Port Hueneme** | **CCC** | **CSLC** |
| 1) Oxnard Shores Sand Management Project | | | | X | | X | |
| 2) Regional Sediment Management Stockpile and Processing Center (Facility construction and operation only. Does not include collection and dispersal of sediment as the locations are presently uncertain.) | | | X | | | | |
| 3A) Sand Retention - Arroyo Burro Beach | | X | | | | X | X |
| 3B) Sand Retention - Butterfly Beach | X | | | | | X | X |
| 3C) Sand Retention - Summerland Beach | X | | | | | X | X |
| 3D) Sand Retention - Santa Claus Beach | X | | | | | X | X |
| 3E) Sand Retention - La Conchita Beach | | | X | | | X | X |
| 3F) Sand Retention - North Rincon Parkway | | | X | | | X | X |
| 3G) Sand Retention - South Rincon Parkway | | | X | | | X | X |
| 4) Re-Nourishment at West Hueneme Beach<br>(Assumes some construction aspect may be land based within the City.) | | | | | X | X | X |
| 5) North Rincon Parkway Shoreline Restoration | | | X | | | X | X |
| 6) South Rincon Parkway Shoreline Restoration | | | X | | X | X | X |
| 7) Retain and Collect Sand at the Mugu Submarine Canyon | | | | | | X | X<br>**Also US Navy** |

Regional Sediment Management Stockpile and Processing Center. The proposed Regional Sediment Management Stockpile and Processing Center site is within an existing 2.6 acre, crescent-shaped “open dirt area” on the north side of Highway 101 within the Rincon Parkway region as shown in Figure 1-5. The 1,000 foot-long site parallels Highway 101 within unincorporated Ventura County and is “backed” to the north by an existing single railroad track right of way and sedimentary cliffs.

Based upon a review of the County of Ventura General Coastal Area Plan land use map the project site land use designation is Open Space and zoned Coastal Open Space (C-O-S) 10-ac-sdf (Ventura County, 2008 and Ventura County GIS mapping 2009). The purpose of this designation is to provide for the preservation and enhancement of valuable natural and environmental resources while allowing reasonable and compatible uses of the land, also to protect public safety through the management of hazardous areas such as flood plains, fire prone areas, or landslide prone areas. Principal permitted uses are one dwelling unit per parcel, agricultural uses as listed as principal permitted uses in "Agricultural" designation, and passive recreational uses that do not alter physical features beyond a minimal degree and do not involve structures. Minimum lot size in the "Open Space" designation is 10 acres.

Sand Retention - Arroyo Burro Beach. The proposed sand management area site is comprised of a 1,200 feet long sandy beach area on the western edge of the City of Santa Barbara for sand deposition and a portion of seafloor immediately offshore (-15 to -20 feet water depth). The shoreline uses inland of the project site are residential with Arroyo Burro County Beach Park located immediately east of the residential neighborhood. (Arroyo Burro Beach is locally referred to as Hendry's Beach.) The residential structures are on a bluff and are setback from the shore at least 140 feet north of the high-high tide line. Arroyo Burro County Beach Park is a developed facility with paved roads, restaurant, parking, restrooms, showers and other facilities.

Based upon a review of the City of Santa Barbara General Plan Land Use Map and Zoning Map the oceanfront property at the project site is designated Residential (1 unit per acre and zoned A 1/S D-3). The park site is designated as Open Space and zoned P R/S D-3.

Sand Retention - Butterfly Beach. The proposed sand management area site is comprised of a 1,200 feet long sandy beach area in the Montecito area of unincorporated Santa Barbara County just east of the city of Santa Barbara (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). The beach is located immediately south of Channel Drive. Land uses north of Channel Drive and the project area include large lot residential uses and the Four Seasons Biltmore. A City of Santa Barbara shoreline bicycle/pedestrian trail leads to this portion of Channel Drive. The beach can be easily accessed in the project area. However, there are hedge plantings between the road and beach in some areas. There are no public facilities (e.g., restrooms, etc.) at this beach.

Based upon a review of the County of Santa Barbara Montecito Community Plan, the area along the shoreline south of Channel Drive has a land use designation of Recreation and/or Open Space. The land use designation on the north side of Channel Drive is Residential (SRR 0.33, minimum parcel size 3 acres), Affordable Housing - Mixed Use Overlay and Resort/Visitor Serving Commercial.

Sand Retention - Summerland Beach. The proposed Summerland Beach sand management area site is comprised of a 1,200 feet long sandy beach area in the Summerland area of unincorporated Santa Barbara County (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). The site is located area south of U.S. 101 and the Southern Pacific Railroad tracks. Finney Street, an access road parallel to the railroad

tracks which provides parking and beach access, terminates near the eastern end of the project area. A public trail, as designated by the County of Santa Barbara Summerland Community Plan, is located immediately south of the railroad tracks and north of the beach in the project area. Beach access via public trail is located within about 1,000 feet both east and west of the site. Lookout Park, located almost 2,000 feet west of the project site, is a public park located on an ocean-front cliff, and also provides trail access to Summerland Beach. A single residence is located immediately inland from the site and other residential uses are located about 900 feet west of the site.

Based upon a review of the County of Santa Barbara Summerland Community Plan, the area south of U.S. 101 and the Southern Pacific Railroad tracks has a land use designation of Existing Public or Private Park/Recreation and/or Open Space and the corresponding zoning is Recreation. The Summerland Community Plan identifies the beach (including shoreline portion of project site) and the entire area south of the Highway 101 as priority land for future public use with respect to open space, scenic and recreational resource qualities.

Sand Retention - Santa Claus Beach. The proposed Santa Claus Beach sand management area site is comprised of a 1,200 feet long sandy beach area in unincorporated Santa Barbara County near the eastern edge of the City of Carpinteria (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). The Southern Pacific Railroad tracks, Santa Claus Lane and U.S. Highway 101 are located north of the site. The railroad tracks are immediately north of the beach in the project area with residential uses directly north of the tracks. The Carpinteria Marsh is located about 100 feet east of the site but is separated from the site by a residential neighborhood. In the project site vicinity, Santa Claus Lane is used by the public as a parking area for beach access, and numerous unofficial trails exist across the strip of undeveloped land between the road and the beach providing pedestrian access to the beach.

Based upon a review of the County of Santa Barbara County South Coast Rural Regions Land Use Designations Coastal and Comprehensive Plans Map (County of Santa Barbara, 2002), the shoreline area at the project site is designated Residential 3.3 units per acre.

Sand Retention - La Conchita Beach. The proposed La Conchita Beach sand management area site is comprised of a 1,200 feet long sandy beach area in the western part of unincorporated Ventura County (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). Highway 101 and railroad track are located northeast and parallel to the site. Beyond these travel corridors (about 200 feet from the site) to the northeast is the residential neighborhood of La Conchita and an equestrian facility. The Mussel Shoals residential neighborhood is located down the beach approximately 700 feet from the site.

Based upon a review of the County of Ventura General Coastal Area Plan land use map, the onshore portion of the project site has a land use designation of Open Space, and is zoned Coastal Open Space (C-O-S) 10 ac-sdf (Ventura County, 2008 and Ventura County GIS mapping 2009).

Sand Retention - North Rincon Parkway. The proposed North Rincon Parkway sand management area site is comprised of a 1,200 feet long sandy beach area in western unincorporated Ventura County (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). Highway 101 and railroad tracks are located northeast and parallel to the site. A recreational area at Faria Beach is located about 2,500 feet down the beach (south east of the site), with the Faria Beach residential neighborhood just beyond (about 3,300 feet from the site). Agricultural uses are located along the highway about 0.5 miles north and south of the site.

Based upon a review of the County of Ventura General Coastal Area Plan land use map the onshore portion of the project site has a land use designation of Open Space, and is zoned Coastal Open Space (C-O-S) 10 ac-sdf (Ventura County, 2008 and Ventura County GIS mapping 2009).

Sand Retention - South Rincon Parkway. The South Rincon Parkway site is comprised of a 1,200 feet long sandy beach area in unincorporated Ventura County west of the City of San Buenaventura (for sand deposition) and a portion of seafloor immediately offshore (-15 to -20 feet water depth). Old Highway 101, Highway 101 and railroad tracks are located northeast and parallel to the site. Beyond these travel corridors is an undeveloped slope with agriculturally designated land on the plateau above. Old Highway 101 is used as a recreational asset as many people park their vehicles along the shore-side of the road to gain access to the beach/ocean and to view the ocean. Additionally, it is a frequently used bicycling route. No residential or other sensitive structural uses are located in proximity to the site.

Based upon a review of the County of Ventura General Coastal Area Plan land use map, the project site on-shore (sand deposition site) land use designation is Recreation. This designation identifies those facilities in the Coastal Zone which provide recreational opportunities or access to the shoreline. Principal permitted uses are active and passive recreation including parks with facilities for picnicking, camping, riding, and hiking, on a day use or longer use basis. Structures or other facilities are limited to those necessary to support the recreational uses.

Re-Nourishment at West Hueneme Beach. The project site is an area offshore of Port Hueneme Beach Park (City of Port Hueneme) and Port Hueneme Harbor operated by the Oxnard Harbor District and the U.S. Naval Construction Battalion Center. Placement of fill on the beach at Port Hueneme Beach Park is proposed as a pre-nourishment component. At the eastern end of the beach within the project area, residential uses are located to the north across Surfside Drive.

The project area beach has a land use designation of Parks and Open Space with a corresponding zoning “Park Reserve Zone”. This zone is intended for public and quasi-public recreational uses, buildings and related human resources.

North Rincon Parkway Shoreline Restoration. The site includes the North Rincon Parkway Sand Retention Project site, plus an additional area to total 7,000 feet of beach and a portion of the seafloor immediately offshore (-15 to -20 feet water depth). The southeastern

extent of this site is adjacent to the recreational area at Faria Beach and the northwestern extent of the site is about 700 feet from the agricultural area located further to the northwest on the south side of Highway 101.

Based upon a review of the County of Ventura General Coastal Area Plan land use map the onshore portion of the project site has a land use designation of Open Space and zoned Coastal Open Space (C-O-S) 10 ac-sdf (Ventura County, 2008 and Ventura County GIS mapping 2009).

South Rincon Parkway Shoreline Restoration. The site includes the South Rincon Parkway Sand Retention Project site, plus an additional area to total 7,000 feet of beach and a portion of the seafloor immediately offshore (-15 to -20 feet water depth). The northeastern end of the site (about 600 linear feet is bordered by the Solimar residential neighborhood.

Sand Capture at the Mugu Submarine Canyon. The project site is located at the southern boundary of the Santa Barbara Littoral Cell. The proposed structure would be offshore. However, prefilling of the beach with sand is proposed. Accumulated sand would be recovered and transported to shore for land transfer or via barge to a predetermined beach nourishment site. Land transfer sites have not been identified to date. The Naval Base Ventura County is located at Point Mugu and the project would be in part located on federal Base property, as the boundaries of the Base extend some 300 to 400 feet offshore (Granade, personal communication January 2010).

**Environmental Thresholds:**

All projects have some degree of impact on community character (Ventura County, 2006). Any project that is consistent with both the applicable zoning and General Plan can be determined to have a less than significant impact on the land use of an area, so long as its design/architectural style is compatible with the surrounding community.

Whether the growth inducing impacts of a project are significant is decided on a case-by-case basis depending upon:

1. how much growth would be accommodated by removing the impediment and setting a precedent in the future,

2. whether that growth is consistent with the planned land use of an area;

3. the physical impacts of said growth.

**Impact Discussion:**

a. The proposed structures would be located offshore with the exception of the proposed fencing at Oxnard Shores and the Regional Sediment Management Stockpile and Processing Center. Potential incompatibilities of the offshore structures with the existing character of the marine setting are discussed in the biological resources, recreation and transportation sections (Sections 4.4, 4.14

and 4.15 respectively). Hazards (both onshore and offshore) associated with the location of the Sand Capture at the Mugu Submarine Canyon within and in proximity to Naval Base Ventura County at Point Mugu are discussed in the hazardous materials/risk of upset section, Section 4.9. Potential incompatibilities of operations to be conducted on beaches and existing use of the beaches is addressed in the biological resources section and recreation section (Sections 4.4 and 4.14 respectively).

As detailed in the sections referenced above, the projects could result in various impacts that would require mitigation. However, assuming mitigation of specific impacts, offshore sand retention structures may generally be considered a compatible use within the marine environment.

Sand fencing is a minor structural component that may be considered compatible with the beach environment at Oxnard Shores with mitigation as described in other sections of this document.

The proposed Regional Sediment Management Stockpile and Processing Center site is located in an area that is secluded from other land uses due to the shape of the site and existing barrier effect of the railroad right-of-way and cliff to the north and Highway 101 to the south. Presently the site is frequently used by Caltrans for the storage of materials. The use of the site as a sand stockpile and processing center would be similar to the current use and is not anticipated to result in a significant land use conflict.

b. Each of the proposed projects would require authorizations from the jurisdictions within which they are located (e.g., grading permits, land use permits and approvals, coastal development permits). Jurisdictions making discretionary approvals would consider the specific project at hand with respect to the existing plans, policies and regulations that apply to the project. Each of the projects must be fully evaluated to determine its environmental effects in order to fully determine the extent of any potential conflicts with existing plans, policies and regulations. While this will ultimately be the responsibility of the regulating authorities, a preliminary assessment of project consistency with applicable plans and policies will be included in the PEIR.

c. The project would require short-term workers for the construction of the various offshore structures and the Regional Sediment Management Stockpile and Processing Center. It is anticipated that these projects would be built-out over time and that the relatively small number of construction personnel required would not result in significant population growth in the project area. Over the long-term, sand relocation would be required on a periodic basis for the various project components. Individuals qualified to operate heavy machinery, trucks and marine vessels would be required. It is anticipated that individuals with the qualifications will be readily available within the project region and the creation of project-related work will not induce significant population growth to the area.

d. The project would not necessitate the extension of new trunk sewers or roads.

e., g. The project would not result in the loss of affordable or any other dwellings due to the nature of the proposed activities.

h. The proposed project activities would impact open space areas, but would not result in the loss of open space. In fact, the purpose of the project is to retain or replenish coastal beaches.

i. The project would result in short-term impacts to coastal resources through the introduction of equipment and construction related activities. This may result in temporary effects on the use of visitor serving business in proximity to the project activities. However, this effect is not anticipated to be significant. Additionally, over the long-term, retention of sand resources within the coastal area would preserve the resource for future use by the public which should have a corresponding positive effect on visitor serving businesses.

j. The project does not include any uses that would conflict with airport safety zones.

**Mitigation and Residual Impact:**

a. Mitigation measures identified in Sections 4.4, 4.9, 4.14 and 4.15 would reduce specific impacts that may also be considered land use conflicts.

b. With respect to potential policy inconsistencies, it is anticipated that mitigation measures developed in association with other environmental impact issue areas would also serve to provide consistency with relevant plans, policies and regulations to the extent feasible. This will be examined further in the environmental document.

c.–j. No significant impacts would result. Therefore, no mitigation is necessary.

## 4.12 Noise

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)? | | | | X | |
| **b.** Short-term exposure of people to noise levels exceeding County thresholds? | | X | | | |
| **c.** Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)? | | | X | | |

**Setting:**

Noise is generally defined as unwanted or objectionable sound. Noise levels are measured on a logarithmic scale because of physical characteristics of sound transmission and reception. Noise energy is typically reported in units of decibels (dB), and noise levels diminish (or attenuate) as distance to the source increases according to the inverse square rule, but the rate constant varies with the type of sound source. Sound attenuation from point sources such as industrial facilities is about 6 db per doubling of distance. Heavily traveled road with few gaps in traffic behave as continuous line sources and attenuate at 3 dB per doubling of distance. Noise from more lightly traveled roads is attenuated at 4.5 dB per doubling of distance.

Community noise levels are measured in terms of the A-weighted decibel (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear. Equivalent noise level (Leq) is the average noise level on an energy basis for a specific time period. The duration of noise and the time of day at which it occurs are important factors in determining the impact of noise on communities. Noise is more disturbing at night and noise indices have been developed to account for the time of day and duration of noise generation. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (DNL or Ldn) are such indices. These indices are time-weighted average values equal to the amount of acoustic energy equivalent to a time-varying sound over a 24-hour period. The CNEL index penalizes night-time noise (10 p.m. to 7 a.m.) by adding 10 dB and evening noise (7 p.m. to 10 p.m.) by adding 5 dB to account for increased sensitivity of the community after dark. The Ldn index penalizes nighttime noise the same as the CNEL index, but does not penalize evening noise.

To limit population exposure to objectionable and/or physically damaging noise levels, the federal, state, county and City governments have established noise standards. Noise standards for noise sensitive uses (i.e., residences, schools, hospitals and churches) are typically 45 dBA CNEL (indoor) and 65 dBA CNEL (outdoor), but vary slightly between jurisdictions.

**Environmental Thresholds:**

The County of Santa Barbara's noise thresholds that are applicable to the project are as follows:

1. A proposed development that would generate noise levels in excess of 65 dBA CNEL and could affect sensitive receptors would generally be presumed to have a significant effect.

2. Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact. According to EPA Guidelines, average construction noise is 95 dBA at a distance of 50 feet from the source. A 6dB drop occurs with a doubling of distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dBA. To mitigate this impact, construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8:00 AM to 5:00 PM only. Noise attenuation barriers and muffling of grading equipment may also be required. Construction equipment generating noise levels above 95 dBA may require additional mitigation.

The County of Ventura Initial Study Assessment Guidelines establish the noise thresholds criteria (from General Plan Section 2.16.2-1 of the Goals, Policies, and Programs). .Permanent noise generators proposed to be located near any noise sensitive use shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise receptor, measured at the exterior wall of the building does not exceed the following standards:

a. Leq1H of 55 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.
b. Leq1H of 50 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
c. Leq1H of 45 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

However, this criteria is not applicable to increased traffic noise identified along any of the roads identified within the 2020 Regional Roadway Network (Figure 4.2.3 of the Public Facilities Appendix of the Ventura County General Plan). In addition, State and Federal highways, all railroad line operations, aircraft in flight, and public utility facilities are noise generators having Federal and State Regulations that preempt local regulations.

General Plan Policy 2.16.2-1 further states that construction noise shall be evaluated and, if necessary, mitigated in accordance with the County Construction Noise Threshold Criteria and Control Plan. Construction noise threshold criteria are provided in the County of Ventura Construction Noise Threshold Criteria and Control Measures (2005) and are presented below.

- During daytime hours, construction work should comply with the County of Ventura construction noise threshold criteria (NTC), defined hereafter. Normally, no evening or nighttime construction activity is permitted in areas having noise-sensitive receptors. However, in the event such activity is deemed necessary and is permitted, reduced noise threshold criteria are provided for construction that must occur during evening and/or nighttime hours. Emergency construction work is exempt from these construction noise thresholds.

- Daytime Construction - Daytime (7:00 a.m. to 7:00 p.m. Monday through Friday, and from 9:00 a.m. to 7:00 p.m. Saturday, Sunday and local holidays) generally means any time period not specifically defined as a more noise-sensitive time period. The daytime construction noise threshold criteria are given below. Depending on project duration, the daytime noise threshold criteria shall be the greater of the fixed Leq(h) limit (which includes non-construction evening and nighttime noise) or the measured ambient Leq(h) plus 3 dB.

- Evening Construction - Evening hours (7:00 p.m. to 10:00 p.m.) are more noise-sensitive time periods. Therefore, evening construction noise threshold criteria differ from the daytime criteria. Overall project construction noise, for the noise-sensitive hours specified, shall not exceed the noise threshold criteria listed below, at the nearest noise-sensitive receptor area or 10 feet from the façade of the nearest noise sensitive building.

- Nighttime Construction - Nighttime hours (10:00 p.m. to 7:00 a.m. Monday through Friday, and from 10:00 p.m. to 9:00 a.m. Saturday, Sunday and local holidays) are the most noise-sensitive time periods. Therefore, nighttime and holiday construction noise threshold criteria differ from the daytime and evening criteria. Overall project construction noise, for the noise-sensitive hours specified, shall not exceed the noise threshold criteria listed below, at the nearest noise-sensitive receptor area or 10 feet from the façade of the nearest noise-sensitive building.

- Maximum Construction Noise - In addition, the construction-related, slow response, instantaneous maximum noise (Lmax) shall not exceed the noise threshold criteria by 20 dBA more than eight times per daytime hour, more than six times per evening hour and more than four times per nighttime hour.

- Determination of Compliance - The construction noise at sensitive receptor locations for each construction phase is due to the contributions of each piece of noise producing equipment used in each construction phase. The resulting construction phase noise must be compared to the construction noise threshold criteria to determine whether noise mitigation measures are required. The construction noise monitoring methods are discussed in Appendix C (of the County of Ventura Construction Noise Threshold Criteria and Control Measures) and typical noise mitigation measures are given in Appendix D. During periods of greater construction noise activity, the construction noise shall be monitored by a designated person trained in the use of a sound meter in accordance with the methods of Appendix C

(of the County of Ventura Construction Noise Threshold Criteria and Control Measures). When construction noise fails to comply with the appropriate noise threshold criteria, or falls out of compliance during use, the designated noise monitor shall immediately identify the non-compliant activity or equipment. Either the non-compliant activity must be stopped and the equipment removed from service or effective remedial action must be taken, similar to the noise mitigation measures of Appendix D (of the County of Ventura Construction Noise Threshold Criteria and Control Measures), to restore compliance with the respective noise threshold criteria. A summary of the daytime, evening, and nighttime noise threshold criteria for Ventura County construction activities is provided in Tables 4.12-1, -2, and -3, respectively.

**Table 4.12-1 Ventura County Daytime Construction Activity Noise Threshold Criteria**

| Construction Duration Affecting Noise-sensitive Receptors | Noise Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building | |
|---|---|---|
| | Fixed Leq(h), dBA | Hourly Equivalent Noise Level (Leq), dBA[1, 2] |
| 0 to 3 days | 75 | Ambient Leq(h) + 3 dB |
| 4 to 7 days | 70 | Ambient Leq(h) + 3 dB |
| 1 to 2 weeks | 65 | Ambient Leq(h) + 3 dB |
| 2 to 8 weeks | 60 | Ambient Leq(h) + 3 dB |
| Longer than 8 weeks | 55 | Ambient Leq(h) + 3 dB |

Note 1 The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 8 times per daytime hour.
Note 2 Local ambient Leq measurements shall be made on any mid-week day prior to project work.

**Table 4.12-2 Ventura County Evening Construction Activity Noise Threshold Criteria**

| Receptor Location | Evening Noise Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building | |
|---|---|---|
| | Fixed Leq(h), dBA | Hourly Equivalent Noise Level (Leq), dBA[1, 2] |
| Residential | 50 | Ambient Leq(h) + 3 dB |

Note 1 The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 6 times per evening hour.
Note 2 Hourly evening local ambient noise measurements shall be made on a typical mid-week evening prior to project work.

**Table 4.12-3 Ventura County Nighttime Construction Activity Noise Threshold Criteria**

| Receptor Location | Nighttime Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building | |
|---|---|---|
| | Fixed Leq(h), dBA | Hourly Equivalent Noise Level (Leq), dBA,[1,2] |
| Resident, Live-in Institutional | 45 | Ambient Leq(h) + 3 dB |

Note 1 The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 4 times per nighttime hour.
Note 2 Hourly nighttime local ambient noise measurements shall be made on a typical mid-week night prior to project work.

The City of Oxnard has adopted a Noise Ordinance (Ordinance No. 2292 presented as Chapter 7, Article IX, Section 7-180 of the Municipal Code) that incorporates the standards shown in Table 4.12-4 below.

**Table 4.12-4 City of Oxnard Operational Phase Noise Standards**

| | | Allowable Exterior Sound Level | |
|---|---|---|---|
| **Sound Zone** | **Type of Land Use** | **7:00 a.m. to 10:00 p.m.** | **10:00 p.m. to 7:00 a.m.** |
| I | Residential | 55 dBA | 50 dBA |
| II | Commercial | 65 dBA | 60 dBA |
| III | Industrial | 70 dBA | 70 dBA |
| IV | As identified in Figure IX-2 of the 2020 General Plan | | |

The noise levels specified above for the identified uses are not to be exceeded by more than 30 minutes in an hour. The Ordinance includes various adjustments, both up and down, for these limits based on duration and quality of the noise. Section 7-188 of the Code identifies exemptions to the provisions of the Ordinance including item (D) which reads as follows: *Sound sources associated with or created by construction, repair, remodeling or grading of any real property or during authorized seismic surveys, provided the activities occur between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, including Saturday*.

The City of Oxnard General Plan policy limits construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday. No construction shall occur after hours, on Sundays, or national holidays without permission from the City.

As presented in the City of Oxnard Ormond Beach specific Plan EIR (2009), noise due to construction activities may be considered to be less than significant in terms of CEQA compliance if:

- The construction activity is temporary
- Use of heavy equipment and noisy activities is limited to daytime hours
- No pile driving or blasting is planned
- All industry-standard noise abatement measures are implemented for noise-producing equipment

The City of Port Hueneme Noise Ordinance (Municipal Code, Chapter 5, Noise Control) prohibits unnecessary, excessive or annoying noise in the City. This chapter also assigns a "designated noise zone" to various land uses as and has established exterior noise level limits as presented in Table 4.12-5 below.

**Table 4.12-5 City of Port Hueneme Operational Phase Noise Standards**

| Designated Zone | Time Intervals | Exterior Noise Levels |
|---|---|---|
| Zone I Noise Sensitive Properties | 7 a.m. - 10 p.m.<br>10 p.m. - 7 a.m. | 50<br>55 |
| Zone II Residential Properties | 7 a.m. - 10 p.m.<br>10 p.m. - 7 a.m. | 55<br>50 |
| Zone III Commercial Properties | Anytime | 65 |
| Zone IV Industrial Properties | Anytime | 75 |

The above standards apply to any noise-generating activity that exceeds the applicable level for a cumulative period of more than 30 minutes in any hour. For noise levels that last for less than 30 minutes, the following standards apply:

- The Exterior Noise Levels plus 5 dB for a total period of more than fifteen minutes in any consecutive sixty minutes; or
- The Exterior Noise Levels plus 10 dB for a total period of more than five minutes in any consecutive sixty minutes; or
- The Exterior Noise Levels plus 15 dB for a total period of more than one minute in any consecutive sixty minutes; or
- The Exterior Noise Levels plus 20 dB for any period of time.

If the ambient noise level exceeds that permissible for any of the Noise Level Limits, the Noise Level Limit shall be increased in 5 dB increments as appropriate to encompass or reflect said ambient noise level. Section 3439 of the Noise Ordinance exempts construction activities from the above standards provided that they are conducted between 7:00 a.m. and 7:00 p.m., Monday through Saturday, or 9:00 a.m. and 6:00 p.m. on Sunday and holidays.

The City of Santa Barbara Noise Ordinance 4039 pertains to construction work at night and states:

> *It shall be unlawful for any person, between the hours of 8:00 p.m. of any day and 7:00 a.m. of the following day to erect, construct, demolish, excavate for, alter or repair any building or structure if the noise level created thereby is in excess of the ambient noise level by 5 dBA at the nearest property line of a property used for residential purposes unless a special permit therefore has been applied for and granted by the Chief of Building and Zoning…*

The City's threshold of significance for construction noise is: substantial noise from grading and construction in close proximity to noise sensitive receptors for an extended duration of time.

Marine mammal in-water noise-associated harassment is defined by the National Oceanic and Atmospheric Administration (NOAA) as any noise above 160 decibels in reference to one micro Pascal root mean square (dB re 1µPa rms) (DeAngelis, personnel communication). In-air noise-associated harassment is defined by NOAA as any noise above 90 Decibels on the A-weighted Scale (dBA) (DeAngelis personnel communication, a). As cited in Cornell University Law School (2008), Level A harassment is "any act of pursuit, torment, or annoyance which has potential to injure a marine mammal or a marine mammal stock in the wild". Level B harassment is defined as any act that "has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering".

Marine mammals have shown behavioral changes when exposed to impulse pressure levels of 160 dB re 1µPa rms, however injury is not observed at this level. Onset of injury to marine mammals may occur at the impulse sound pressure level of 180 dB re 1 µPa rms, and at 190 dB re 1 µPa rms for pinnipeds (NOAA, 2006).

The effects of underwater noise on sea turtles are not well studied, however NOAA Fisheries also considers the 190 dB re 1µPa rms level to be detrimental to sea turtles (Fahy, personnel communication).

**Impact Discussion:**

a. The project does not propose construction of any sensitive land uses. Thus no populations would be introduced to areas with excessive existing ambient noise conditions.

b. Each of the proposed projects would include a construction component with the exception of the proposed sand use ordinance. All of the physical projects except the Oxnard Shores Sand Management Project and Regional Sediment Management Stockpile and Processing Center would include an offshore facility component that would require the use of marine vessels and equipment. Additionally, onshore equipment would be used for the placement and movement of sand for these projects.

The locations of sensitive receptors relative to the individual projects are listed and described in Table 4.12-6.

**4.12-6 Location of Closest Sensitive Receptors to Project Sites**

| Project | Nearest Sensitive Receptor | Shortest Distance to Onshore Construction Equipment in feet (approximate) | Shortest Distance to Offshore Equipment in feet (approximate) |
|---|---|---|---|
| 1) Oxnard Shores Sand Management Project | Residences north of the site across Mandalay Beach Road | 40 | NA |
| | Residences on the beach west of Mandalay Beach Road | 5 | NA |
| 2) Regional Sediment Management Stockpile and Processing Center (Facility construction and operation only. Does not include collection and dispersal of sediment as the locations are presently uncertain.) | Cliff House Inn located across U.S. 101 to the west at Mussel Shoals | 1,800 | NA |
| 3A) Sand Retention - Arroyo Burro Beach | Residences on bluff north of beach | 140 | 740 |
| 3B) Sand Retention - Butterfly Beach | Residences and Four Seasons Biltmore north of the beach and Channel Drive | 120 | 720 |
| 3C) Sand Retention - Summerland Beach | Single residence north of the work area | 100 | 700 |
| | Residential neighborhood west of site | 900 | 1,600 |
| 3D) Sand Retention - Santa Claus Beach | Residences northeast and east of the site | 100 | 700 |
| 3E) Sand Retention - La Conchita Beach | Residences northeast of site across U.S. Highway 101 | 300 | 900 |
| 3F) Sand Retention - North Rincon Parkway | Faria Beach residential neighborhood | 3,300 | 3,800 |

| Project | Nearest Sensitive Receptor | Shortest Distance to Onshore Construction Equipment in feet (approximate) | Shortest Distance to Offshore Equipment in feet (approximate) |
|---|---|---|---|
| 3G) Sand Retention - South Rincon Parkway | Solimar residential neighborhood to the west | 4,800 | 5.400 |
| 4) Re-Nourishment at West Hueneme Beach<br>(Assumes some construction aspect may be land based within the City.) | Multi-family residential use to the north | 450 | 1,050 |
| 5) North Rincon Parkway Shoreline Restoration | Faria Beach residential neighborhood | 900 | 1,500 |
| 6) South Rincon Parkway Shoreline Restoration | Solimar residential neighborhood to the west | 50 | 650 |
| 7) Retain and Collect Sand at the Mugu Submarine Canyon | None in proximity to site. | | |

A description of the noise level requirements at each of the proposed sites is provided below.

Oxnard Shores Sand Management Project. This project is located in the City of Oxnard. As indicated above, City of Oxnard Ordinance No. 2292 established the following noise standards for residential uses:

- Residential zones: 55 dBA Leq from 7:00 a.m. to 10:00 p.m.
- Residential zones: 50 dBA Leq from 10:00 p.m. to 7:00 a.m.

However, Section 19-60.9(D) of Ordinance No. 2292 exempts construction activities from these noise standards, provided they are conducted between 7:00 am and 6:00 pm. Construction of the sand fencing is proposed to be conducted by hand and would not require the use of heavy equipment. Thus construction noise from this activity would be less than significant.

Over the long-term, two to four times per year a small front end loader and bulldozer would be used to relocate accumulated sand to the beach face. With operation of the front end loader and bulldozer noise levels each working half time the noise level at 50 feet is expected to be 84 dBA. (During sand movement equipment would be operating closer than 50 feet at some points but usually further than 50 feet from any given sensitive receptor.) Accounting for a 6dB reduction in noise level for each doubling of distance from the source, noise would diminish to below significance once the equipment moved away from any given sensitive receptor about 200 feet. Because this activity would not be continuous, and it consists of grading of real property, it may be considered exempt from the City Noise Ordinance *provided the activities occur between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, including Saturday.* It may also be considered reasonable to apply the construction noise thresholds. Under the City's construction criteria, this activity would not be considered to result in significant effects assuming the day and hour limits presented above and implementation of all industry-standard noise abatement measures for noise-producing equipment.

Regional Sediment Management Stockpile and Processing Center. The closest sensitive receptor (Cliff House Inn) is located about 1,800 feet east of the proposed site and across U.S. 101. Due to the distance from the site and the high ambient noise levels associated with vehicular traffic on U.S. Highway 101, neither short-term or long-term noise is expected to

significantly impact sensitive receptors. (Based on an assumed use of two dozer, two loaders and a truck tractor, project-generated noise at the nearest sensitive receptor is estimated to be 50 dBA Leq. This is below the significance thresholds for both long-term and short-term noise even if nighttime operations were to occur due to the high ambient noise level associated with U.S. Highway 101.)

Sand Retention Pilot Projects. Offshore equipment for construction of the proposed submerged structures is anticipated to include one tug for setting of moorings, one tug for towing of the barge and a barge-mounted crane for placement of the structural material. Tug boat and derrick barge noise levels are 82.1 and 81.5 dBA at 50 feet respectively (State Lands Commission, 2004). The combined noise level for the two vessels is 83.1 dBA at 50 feet. The closest the vessels are expected to operate is 600 feet from shore. The noise level from these vessels would be reduced to 61.5 dBA at the shoreline. As a worst case scenario it is expected that one tug and the derrick barge would be in operation simultaneously offshore and a bulldozer and front-end loader would be operating onshore for the placement of sand. Estimated noise levels at sensitive receptors resulting from onshore construction activity were added to estimated noise levels from marine vessel activity to produce the overall estimated noise level at the closest sensitive receptor at each site as described below. However, due to the characteristics of noise and the fact that in all cases onshore construction noise is substantially louder at the closest sensitive receptors than noise attributable to the offshore vessels (due to distance), the addition of the offshore noise to the onshore noise does not significantly increase the overall construction noise level from that associated with onshore operations alone. Construction is anticipated to take about four months at the site including construction of the reef feature and place sand along the beach.

Sand Retention - Arroyo Burro Beach. Based upon the equipment assumptions and sensitive receptor locations as presented above, the closest residence would be subjected to an estimated construction-related exterior noise level of approximately 73 dBA. This does not account for the barrier effect that would result due to the topography of the site (residences are on a bluff above the beach which should substantially reduce the construction noise. None-the-less construction noise may be considered a significant impact to the closest residences.

Sand Retention - Butterfly Beach. Based upon the equipment assumptions and sensitive receptor locations as presented above, the closest residence and Four Seasons Biltmore would be subjected to an estimated construction-related exterior noise level of approximately 75 dBA. Thus construction noise is considered significant for the closest sensitive receptors.

Sand Retention Summerland Beach. Based upon the equipment assumptions and sensitive receptor locations as presented above, the closest single residence would be subjected to an estimated construction-related exterior noise level of approximately 77 dBA Leq which is considered significant. The closest residence at the neighborhood to the west of the construction site would be subjected to a construction noise level of about 55 dBA Leq which is not considered significant based on County of Santa Barbara thresholds.

Sand Retention Santa Claus Beach. Based upon the equipment assumptions and sensitive receptor locations as presented above, the closest single residence would be subjected to an

estimated construction-related exterior noise level of approximately 77 dBA Leq which is considered significant.

Sand Retention La Conchita Beach. Based upon the equipment assumptions and sensitive receptor locations as presented above, the closest single residence would be subjected to an estimated construction-related exterior noise level of approximately 66 dBA Leq. The Ventura County threshold applicable to this site is 55 dBA or Ambient Leq(h) + 3 DBA. Because U.S. Highway 101 is there primary source of noise in the project area and the sensitive receptors are located across the highway from the project about 180 feet from the centerline of the highway, ambient noise is estimated to be above 66 dBA at the sensitive receptor site based upon modeling (CALVENE) of traffic volumes in the project area (see Appendix B). Thus construction noise from the project when added to the ambient noise is not expected to exceed the County threshold.

Sand Retention North and South Rincon Parkway. Due to the distance (over 3,000 feet) between project construction activities and the closest sensitive receptors, construction noise due to the Sand Retention Projects at North and South Rincon Parkway would be less than significant.

West Hueneme Beach Renourishment Longevity. Construction noise generation associated with the West Hueneme Beach project area would be similar in character as the pilot sand retention projects. Assuming use of onshore equipment for the movement of sand and the location of sensitive receptors as described above, it is estimated that construction noise levels would be 61 dBA Leq at the closest receptor. The City of Port Hueneme exempts construction noise from it significance criteria as long as it complies with the City Ordinance pertaining to days and hours of operation. Thus, construction noise impacts would be considered adverse but less than significant.

North Rincon Parkway Shoreline Restoration. Construction noise generation associated with the North Rincon Parkway Shoreline Restoration would be similar in character to the sand retention projects. Project-generated noise levels would be 55 dBA Leq at the nearest sensitive receptor. This level does not exceed the applicable County threshold.

South Rincon Parkway Shoreline Restoration. Construction noise generation associated with the South Rincon Parkway Shoreline Restoration would be similar in character to the sand retention projects. Project-generated noise levels would be 84 dBA Leq at the nearest sensitive receptor. This level exceeds the applicable County threshold.

Retain and Collect Sand at the Mugu Submarine Canyon. This project is located on and in proximity to Naval Base Ventura County- Point Mugu. Noise producing project activities for this project would be similar to that associated with the other projects that include construction of an offshore structure and pre-filling of the beach inshore of the structure with sand. However, based upon a review of aerial photography of the area, it does not appear that there are any sensitive receptors (e.g., residential units) near the shore where the project would occur. As such no significant noise impact is expected from this project.

Operations at the Naval Base include use of aircraft and other noise producing operations. Workers may be exposed to significant noise levels on a periodic basis. However, it is assumed that the contractors would comply with all California Occupational Safety and Health Act (Cal OSHA) regulations including those relating to the protection of worker hearing.

c. The Regional Sediment Management Stockpile and Processing Center would have an ongoing operational component. However, due to its location adjacent to U.S. Highway 101 and the lack of nearby sensitive receptors, siting of the facility at this location would not generate a substantial increase in the ambient noise level for adjoining areas from the operation of equipment onsite. This project would also result in the generation of additional truck trips to and from the site during the operational life of the project. The import and export of material to the site would occur on a sporadic basis as a source of supply or a need for supply arises. The proposed facility is modest in size and the maximum amount of sediment that would be stored onsite at any given time is 3,000 CY of unprocessed sand and 16,000 CY of processed sand. Under a typical worst case scenario, it is assumed that there would be a project demand somewhere in the region for all of the sediment that is stored onsite for a given project. Under such conditions, an estimated 1,067 trips would occur (assuming use of semi-end dump trucks with 15 CY capacity) over a period of 18 days (assuming that each load takes 10 minutes to process and that operations occur continuously for 10 hours per day) for removal of the entire quantity of processed sediment. Under this scenario about 60 trips per day would occur for 18 days. In the project area U.S. Highway 101 carries a traffic volume of 130,000 annual average daily trips (AADT) based on 2008 counts (Caltrans, 2008). The addition of 60 truck trips would not result negligible increase in noise levels from highway traffic. Additionally, because the site is presently used for materials storage, truck trips are presently generated from the site on a periodic basis. No significant noise impact would result.

   Projects that would have periodic ongoing noise producing activities (e.g., movement of sand on beaches) have been considered under item (b) pertaining to short-term exposure of people to noise because of the short-term nature of the events even though they would occur periodically over the life of a specific project.

**Mitigation and Residual Impact:**

a. No significant impacts would result. Therefore, no mitigation is necessary.

b. Implementation of the following measure is required of all projects to ensure compliance with local regulations and to reduce short-term noise impacts.

   **NOI-1** Projects will comply with the Noise Ordinance requirements (e.g., day and hour limitations for construction operations) for the jurisdiction within which the project is located.

The following measures are required for the Oxnard Shores Sand Management Project (periodic sand movement); Sand Retention Projects at Arroyo Burrro Beach, Butterfly Beach and Santa Claus Beach; South Rincon Parkway Shoreline Restoration Project.

**NOI-2** All industry-standard noise abatement measures for noise producing equipment shall be in place.

The following measures are required for the Sand Retention Projects at Arroyo Burrro Beach, Butterfly Beach and Santa Claus Beach; South Rincon Parkway Shoreline Restoration Project..

**NOI-3** Conduct truck loading, unloading, and hauling operations so noise and vibration are kept to a minimum.

**NOI-4** Route construction equipment and vehicles carrying soil, or other materials over streets and routes that will cause the least disturbance to residents in the vicinity of construction sites and haul roads.

**NOI-5** Construction noise monitoring (when it is in proximity to noise sensitive uses) shall be conducted. (For projects in Ventura County monitoring shall be in accordance with Appendix C and D of the County of Ventura Construction Noise Threshold Criteria and Noise Control Measures [prepared by Advanced Engineering Acoustics] as adopted by the Ventura County Board of Supervisors [November 2005] which is available for review at the Ventura County Public Works Agency and Ventura County Planning Division. Appropriate threshold criteria to be applied to each specific sensitive receptor location shall be determined based upon the field conditions [ambient noise, duration of construction, time of day of construction, etc.])

**NOI-6** Where and when construction noise threshold criteria for the applicable jurisdiction is expected to be exceeded or is exceeded (based upon monitoring results) at sensitive receptor locations, noise abatement measures are to be implemented and adequate noise reduction achieved to bring the construction activities into compliance with the construction noise threshold criteria. Construction noise mitigation may be achieved by using any combination of equipment source noise reduction, propagation path noise reduction and sensitive receptor noise reduction methods.

**NOI-7** All adjacent residents shall be given notice at least two weeks prior to project construction of the construction schedule including beginning and end dates and, days and hours of construction.

Discussions on the potential effects of project-related noise on marine wildlife will be discussed in the biological resources section of the CEQA document. With implementation of the above measures and measure HAZ-6 pertaining to coordination of work for the Sand Capture at Mugu Submarine Canyon Project, all noise impacts would be reduced to less than significant.

## 4.13 Public Facilities

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** A need for new or altered police protection and/or health care services? | | | X | | |
| **b.** Student generation exceeding school capacity? | | | | X | |
| **c.** Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)? | | | X | | |
| **d.** A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)? | | X | | | |
| **e.** The construction of new storm water drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | X | | | |

**Setting:**

Wastewater collection service in the north coastal portion of the County of Ventura is provided by the County Water and Sanitation Department. County Service Area No. 29 (CSA 29) was formed on December 15, 1978, to construct, operate and maintain a sewer system in the community of North Coast to serve Solimar Beach, Faria Beach, Seacliff, and Mussel Shoals. The North Coast Sewer System is a Septic Tank Effluent Pump (STEP) system in operation since 1982. Step systems use septic tanks to remove larger solids and small pumps to transport the sewage effluent. The North Coast System serves approximately 300 service connections and comprises 13 miles of force main (some gravity lines), 3.6 miles of electrical conduit, and 155 STEP pumps with electric panels, 160 tanks, and six lift stations. The sewage is discharged to the City of Ventura sewer system for treatment and disposal. The Water and Sanitation Department manages the system. Ventura Regional Sanitation District operates and maintains the system under a contract with the County. The County Board of Supervisors is the governing body.

Domestic water service is provided in the Seacliff area to the east and to the La Conchita community to the west by Casitas Municipal Water District. However, the water lines serving these areas of the County originate from Lake Casitas and extend south to these areas of the coast. There is no existing connection along the coastline between these two service areas, although Casitas Municipal Water District has long-term plans of constructing a connection for redundancy in the case of a disruption of service along either of the lines serving the areas east and west of the Regional Sediment Management Stockpile and Processing Center site.

**Environmental Thresholds:**

Thresholds for significance of impacts on public facilities such as police protection, health care and schools are typically dependent upon the population/student increase created by a project with respect to its affect on the acceptable ratio of service per level of population.

County of Ventura environmental thresholds for solid waste state that any project that generates solid waste will have an impact on the demand for solid waste disposal capacity in Ventura County. However, unless the County has reason to believe that there is less than 15 years of disposal capacity available for County disposal, no individual project would have a significant impact on the demand for solid waste disposal capacity. In addition, Ventura County Ordinance 4155 minimizes the potential solid waste disposal capacity impacts for any project by mandating the recycling of materials found on the "Director's List of Recyclables".

Water supply impacts are considered less than significant if a permanent source of water (such as service by Casitas Municipal Water District) is available to the project.

A project that would result in the generation of sewage effluent exceeding capacity of the existing collection and treatment system would have a significant impact.

A project that would impact the capacity of existing drainage infrastructure has the potential for a significant impact.

**Impact Discussion:**

a. The proposed project consists of beach nourishment related actions and do not include any elements that would introduce a new permanent population into an area. The only onshore project elements that may attract vandalism and as such create a demand for police protection is the fencing at Oxnard Shores and the Regional Sediment Management Stockpile and Processing Center. However, neither of these projects is expected to generate a substantive number of additional calls for service, nor a need for new or altered police protection facilities.

   The project is not expected to generate a new population to the area and as such would not create a need for new or altered health care facilities.

b. Project employees are either expected to be local or only temporarily in the area for short-term construction-related employment. Thus, the project would not result in the generation of a new student population.

c. Minimal amounts of solid waste would be generated incidental to construction-type operations for construction of offshore structures and movement of sand and materials. The Regional Sediment Management Stockpile and Processing Center would include a permanent operational facility including an office trailer (40 feet by 8 feet in size). This facility is not expected to result in the generation of substantial amounts of solid waste.

Adequate permitted capacity has been demonstrated such that Ventura County provides sufficient disposal capacity beyond the 15 year planning period identified in the County thresholds (Belluschi, personal communication). Therefore, project-specific and cumulative solid waste impacts are considered to be less than significant.

d. The only project element that would have the potential to require new or altered sewer facilities is the Regional Sediment Management Stockpile and Processing Center located in northern Ventura County.

The Regional Sediment Management Stockpile and Processing Center is presently not provided with wastewater service. Depending upon the ultimate design and operational characteristics of the proposed facility either portable toilets or a permanent sanitation system would be required at the site. Because no sanitation services are presently provided to the project site and the project would require such services there is a potential for environmental effects to result from the provision of this service to the site. If a septic system and connection to the STEP system is pursued, there would be a need to extend wastewater collection lines to the nearest existing wastewater mains. Additionally it is possible that upgrades to the existing system would be necessitated to accommodate the project. Such construction may result in significant effects that would require future evaluation.

e. Due to the nature of the projects, drainage would not substantially modified at any of the project sites including the Regional Sediment Management Stockpile and Processing Center as it is presently used for similar purposes as proposed. Thus no modifications of existing drainage systems are anticipated.

Permanent water service would not be required for any of the projects with the possible exception of the Regional Sediment Management Stockpile and Processing Center. A source of water for dust management and potable use would likely be required for this project. No potable water is presently available at the site (Cole, personal communication. January 2010). Should a connection to Casitas Municipal Water District be desired for the project, the project proponent would be responsible for the cost of installing a water line from one of the existing connections. Temporary construction water could be obtained via a fire hydrant connection at the fire station at Seacliff. In the event that water service from Casitas Municipal Water district is provided to the site there would be a potential for environmental impacts to be associated with the installation of the new pipeline.

**Mitigation and Residual Impact:**

a., b., c . No significant impacts are identified. Therefore, no mitigation is necessary.

d. The following measure would reduce potential impacts associated with (d) related to sanitary sewer service to the Regional Sediment Management Stockpile and Processing Center.

**PUB-1** If permanent sanitary sewer service is to be provided to the Regional Sediment Management Stockpile and Processing Center, the project proponent shall coordinate with the County of Ventura Water and Sanitation Department/Ventura Regional Sanitation District to determine if such service can feasibly be provided to the site. Assuming such service can be feasibly provided, the necessary improvements shall be constructed prior to operation of the Regional Sediment Management Stockpile and Processing Center. An assessment of the environmental impacts associated with any upgrade of the STEP system will be required prior to construction.

e. The following measure is required to reduce potential impacts associated with (e) related to water service to the Regional Sediment Management Stockpile and Processing Center.

**PUB-2** If domestic water supply from Casitas Municipal Water District is to be provided to the Regional Sediment Management Stockpile and Processing Center, the project proponent shall coordinate with the District to establish a new water connection and service to the site. The necessary improvements shall be constructed prior to operation of the Regional Sediment Management Stockpile and Processing Center. An assessment of the environmental impacts associated with any upgrade of the STEP system will be required in compliance with CEQA prior to construction.

With the incorporation of these measures, residual impacts would be less than significant.

## 4.14 Recreation and Commercial Fishing

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Conflict with established recreational uses or commercial fishing uses of the area? | X | | | | |
| **b.** Conflict with biking, equestrian and hiking trails? | | X | | | |
| **c.** Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)? | | X | | | |

**Setting:**

Ventura and Santa Barbara counties are noted for their abundant coastal recreation opportunities. These include beach access for sunbathing, sand sports (e.g., volley ball) coastal resource viewing and appreciation; ocean sports (e.g., surfing, swimming, recreational fishing kayaking and diving); and recreational boating. Public access to the beach and ocean is widely available in the project area and numerous local, state and national parks exist along the coastline. Popular surf spots in proximity to the specific project site include: Rincon, Mussel Shoals, Hobson's, Solimar, Oxnard Shores, Port Hueneme and Point Mugu.

Within the project area (coastal Ventura and Santa Barbara counties) the Juan Bautista de Anza National Historic Recreational Trail, which commemorates an historical Spanish expedition in 1775-1776 extends along the coast (mainly along U.S. Highway 101, and old Highway 101) from the City of Ventura north to Gaviota in Santa Barbara County (north and south of this area the trail goes inland). The route itself is of historical interest and provides access to many recreation spots including coastal parks and beaches. In the project area the trail passes San Buenventura and Emma Woods State Beaches and Faria and Hobson County Parks in Ventura County; and Goleta Beach County Park and El Capitan, Refugio and Gaviota State Beaches in Santa Barbara County.

Designated bicycle routes in the immediate vicinity of the project site include:

- Channel Drive (Montecito area of Santa Barbara County - Butterfly Beach area)
- Cliff Drive (City and County of Santa Barbara - Arroyo Burro Beach area)
- Old highway 101/Route 1 (Ventura County –Rincon Parkway area).

Specific information relative to the locations of each project site (including proximity to recreational resources) is provided in Section 4.11 Land Use.

The project region also supports a substantial recreational fishing community and a variety of commercial fishing types, including stationary (set) gear such as lobster and crab traps, set lines, and "gill" nets; mobile gear including drift nets and trawls; seining operations; and divers. Commercial fishing occurs throughout the marine waters of the project region with target species based on season, gear type, water depth, and seafloor type. Generally, commercial trawling is not allowed inshore of the California state three-nautical mile limit, however the project region is included in the California Halibut Trawl Grounds which extends from Point Mugu to Point Arguello wherein such trawling is permitted. Nearshore (to water depths of approximately 300 ft) commercial fishing generally targets on crab, halibut, lobster, sea cucumbers, urchins, and epipelagic species such as squid, anchovies, and sardines. Deeper water operations using drift nets usually target surface species such as sharks and swordfish, as well as trawl-caught demersal species such as flatfish. The California Department of Fish & Game maintains catch records from a series of 10 nautical mile-square areas of the ocean known as Fish Blocks. Catch data, recorded by the commercial fisher at the time the catch is sold, is recorded by species and pounds. These data are available to the public and are routinely used to characterize the commercial catch from an area of the marine waters offshore California. Similar records, consisting of number of individuals by species, are maintained for the party-boat recreational fishing fleet also.

**Environmental Thresholds:**

Significance thresholds for recreational impacts are based upon the increase in demand for recreation caused by the project relative to adopted standards. Because the project will not induce a resident population, such thresholds do not apply. Although no thresholds related to the significance of effects to commercial or recreational fisheries have been established by the Counties, precedent suggests that significant effects would result from the loss of 10 percent or more of the available fishing area, a substantial reduction in catch or income to commercial fishers, or damage or loss of commercial fishing gear resulting from project-related activities.

**Impact Discussion**:

a., c. All of the proposed project sites with the exception of the, Regional Sediment Management Stockpile and Processing Center would include an onshore component to be located on a coastal beach. The beach sites are used for recreational purposes by residents and visitors alike. Specific information relative to the locations of each project site is provided in Section 4.11 Land Use. Project activities, specifically the pre-filling of beaches and movement of sand on the beaches would introduce construction equipment to the beaches resulting in a disruption to the recreational use of the beach and a potential safety issue for beach goers. This is considered a significant project impact.

Many of the projects include the construction of offshore structures. Marine vessels would be working offshore at the project sites for a period of about four months for the Sand Retention Pilot Projects, one year for the West Hueneme Beach Renourishment Longevity Improvement Project and Sand Capture at Mugu Submarine Canyon Project, and two years for each of the North and South Rincon Parkway Shoreline Restoration Projects. Offshore recreation (e.g., boating, fishing, surfing) would be precluded from the area of construction and vessel operations/anchoring during period of offshore structure placement. However, due to the fact that the area of preclusion would be limited (with abundant other locations for offshore recreation remaining, and the preclusion would be temporary albeit as long as two years for the North and South Rincon Parkway Shoreline Restoration Projects, this impact is considered less than significant.

Over the long-term, the offshore structures would create a hardbottom substrate that would be expected to provide a holdfast for kelp and habitat for various types of marine life. In addition, those structures would have the potential to improve local conditions for recreational diving and provide improved recreational fishing opportunities. Additionally, the purpose of the project is to improve sand retention of coastal beaches which would have a long-term beneficial impact on all beach-dependant recreation.

The structures would have the potential to alter surf conditions. However, the projects are intended to be designed to avoid impacts and/or enhance surfing

opportunities since BEACON's objectives regarding proposed offshore structures are multi-purpose: sand retention, biological resource enhancement, and surfing enhancement. At present the structural design is conceptual. The detailed geometry of the structures will need to be developed with the intent of preserving or enhancing recreational surf. Further assessment of their potential impact on recreational surf will need to be conducted.

Those projects that include offshore actions could result in potential impacts to ongoing and future fishing activities through the preclusion of areas used for commercial/recreational fishing, and alteration or degradation to seafloor and water column habitats that support commercially-important species. In addition, the presence of submerged structures could reduce available fishing areas, but also enhance those fisheries that require hard substrate. Details on the potential impacts to the fishing industry will be included in the CEQA document.

b. During the construction phase of the projects and periodic sand movement operations during the life of specific projects (e.g., Regional Sediment Management Stockpile and Processing Center and Oxnard Shores Sand Management Project), construction equipment and materials will need to be transported over local roadways. Particular roads within the project area that would be impacted by the aforementioned traffic include designated bike trails (e.g., Channel Drive, Cliff Drive, Rincon Parkway); however, most, if not all of the roads in the project area may be used by bicyclists regardless of official designation as a bicycle route. With compliance with all necessary permits (e.g., haul permits, encroachment permits) as appropriate, and the use of standard precautions (e.g, traffic control signage and flagmen), this temporary Project impact is expected to be less than significant.

Over the long-term, development of the Regional Sediment Management Stockpile and Processing Center would have the potential to significantly impact the bike trail that extends through this site as well as planned improvements to the trail if not appropriately designed. Presently, Caltrans is in the process of planning an expansion of U.S. Highway 101 in the area of the site to include High Occupancy Vehicle (HOV) lanes (DeGeorge, personal communication). Improvements to the bike lane are proposed in the area of the Regional Sediment Management Stockpile and Processing Center. A pedestrian underpass is also planned in the vicinity of the site (one currently exists near the site). The Caltrans project as well as other pending and approved development together with the proposed project will be described and evaluated further in the cumulative impacts analysis portion of the PEIR.

**Mitigation and Residual Impact:**

a., c. The following mitigation measures would reduce the project's recreation and commercial fishing impacts to a less than significant level:

**REC-1** Project construction requiring the use of heavy equipment on the beach should not be conducted during the summer (June 1 through September 1) when recreational use is at its highest, or on weekends, or federal and state holidays during any time of the year.

**REC-2** All project operations that would be located on recreational beaches shall include temporary exclusionary fencing or flagging and signage for public safety and to provide information about the project activities including timing and duration. Temporary, onshore signage shall also be provided to inform the pubic of the offshore submarine structure construction. All signage shall be installed at least two weeks prior to commencement of work activities, shall be properly maintained through the construction period and shall be removed upon completion of work.

**REC-3** All proposed submarine structures shall be designed such that local surf conditions are either unaffected or enhanced.

**REC-4** A Fisheries Contingency Plan that specifies actions that will be taken to reduce the effects to commercial fishing activities shall be prepared for all projects that have offshore operations.

**REC-5** Offshore operations will be noticed to local fisheries representatives, harbormasters and liaison officers, and project-related vessels will utilize pre-determined vessel traffic corridors to reduce fishing gear/construction vessel interactions. Compensation for lost or damaged fishing gear will be negotiated between BEACON and the affected fisher.

b. Assuming compliance with required permits (e.g., haul and encroachment permits), no significant short-term impacts are anticipated. Long-term impacts could potentially be mitigated through the following measure.

**REC-6** The proponent/developer of the Regional Sediment Management Stockpile and Processing Center shall coordinate with representatives from Caltrans and the Ventura County Transportation Commission in the design of the proposed facility to ensure that the bicycle trail through the site will be accommodated in a safe manner by the project design. Appropriate location of proposed project facilities and the use of signage, striping and railing to designate the trail are potential measures that could be implemented.

## 4.15 Transportation/Circulation

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system? | | X | | | |
| **b.** A need for private or public road maintenance, or need for new road(s)? | | X | | | |
| **c.** Effects on existing parking facilities, or demand for new parking? | | | X | | |
| **d.** Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods? | | | | X | |
| **e.** Alteration to waterborne, rail or air traffic? | | X | | | |
| **f.** Increase in traffic hazards to motor vehicles, bicyclists or pedestrians (including short-term construction and long-term operational)? | | X | | | |
| **g.** Inadequate sight distance? | | | X | | |
| ingress/egress? | | X | | | |
| general road capacity? | | X | | | |
| emergency access? | | | X | | |
| **h.** Impacts to Congestion Management Plan system? | | X | | | |

**Setting:**

Roads and highways within Ventura and Santa Barbara counties consist of an interconnected network of Federal and State highways and county and city roads comprised of freeways/expressways, conventional state highways, primary arterials, secondary arterials, major collectors. minor collectors and local streets/roads.

Within Ventura County and Santa Barbara counties the main interstate route which extends east to west is U.S. Highway 101 which generally ranges from four to six lanes. This is the primary highway that would be used by project traffic to access local roads to the Project sites include.

Level of Service (LOS) is a term that provides a qualitative description of operating performance of a road or intersection based on traffic conditions regarding speed, travel time,

freedom to maneuver; traffic interruptions and motorist's perceptions. The levels range from LOS "A" (free flow conditions) to "F" (jammed conditions). Within the project area the LOS of roads and intersections varies from excellent to below adequate.

Harbors, airports and rail transport in the project area are identified as follows. Primary harbors in the project area include Port Hueneme, Channel Islands, Ventura and Santa Barbara. Commercial airports in the project area are located in Oxnard and Santa Barbara. Rail service in the project area is provided by Amtrack and Metrolink. Tracks used by these services parallel U.S. Highway 101 between Ventura and Santa Barbara and are therefore in close proximity to some of the project sites (e.g., Regional Sediment Management Stockpile and Processing Center, North and South Rincon Parkway Shoreline Restoration). The Port of Hueneme is served by the Ventura County Railroad Company with both northern and southern access (County of Ventura, 2005). The northern line extends into the Naval Base Ventura County. The southern line enters the Port of Hueneme from the east along an alignment south of Hueneme Road and serves Wharf 1 only. The Ventura County Railroad (owned by Rail American, Inc.) connects with the Union Pacific Railroad in the City of Oxnard. Commercial vessels utilize the designated transit corridors and Coastwide Vessel Transit corridors and Separation Zone that are located in the southern portion of Santa Barbara Channel. A system of voluntary vessel corridors associated with oil and gas supply and crew vessels exists within the nearshore areas of Santa Barbara Channel between mainland piers and offshore oil and gas platforms.

**Environmental Thresholds:**

The County of Ventura Initial Study Assessment Guidelines (2006) state that a potentially significant adverse project-specific traffic impact is assumed to occur at any intersection on the Regional Road Network if the project will exceed the thresholds established in Table 4.15-1 below.

**Table 4.15-1 Ventura County Threshold of Significance for Intersection Changes in LOS**

| Intersection LOS (Existing) | Increase in V/C or Trips greater than |
|---|---|
| A | 0.20 |
| B | 0.15 |
| C | 0.10 |
| D | 10 PHTs* |
| E | 5 PHTs |
| F | 1 PHT |

* PHT = peak hour trip

A potentially significant cumulative traffic impact is assumed to occur at any intersection if one of the following results from the project:

1. If the project will add one or more peak hour trip (PHT) to the critical movements at an intersection that is part of the regional road network and which is currently operating at unacceptable level of service (as defined in the thresholds guidelines) by the year 2020.

2. If the project will add 10 or more PHTs to an intersection that is part of the regional road network, which is projected to operate at an unacceptable level of service (LOS), as defined in the thresholds guidelines, by the year 2020.

Thresholds for safety and design indicate that projects that comply with the County Roads Standards generally have a less than significant impact on safety and design of the public road system. Project impacts o intersections that exceed State accident warrants fro signalization will be considered significant.

According to the County of Santa Barbara's Environmental Thresholds and Guidelines Manual, a significant traffic impact would occur when:

1. The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the value provided in Table 4.15-2 below, or sends at least 15, 10 or 5 trips to an intersection operating at LOS D, E or F, respectively.

**Table 4.15-2 Santa Barbara County Threshold of Significance for Volume Changes in LOS**

| Level of Service (Including Project) | Increase in Volume/Capacity Greater Than |
|---|---|
| A | 0.20 |
| B | 0.15 |
| C | 0.10 |
| | Or the addition of: |
| D | 15 trips |
| E | 10 trips |
| F | 5 trips |

2. Project access to a major road or arterial road would require a driveway that would create an unsafe situation, or would require a new traffic signal or major revisions to an existing traffic signal.

3. Project adds traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, inadequate pavement structure) or receives use which would be incompatible with substantial increases in traffic (e.g. rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use, etc.) that will become potential safety problems with the addition of project or cumulative traffic. Exceeding the roadway capacity designated in the Circulation Element may indicate the potential for the occurrence of the above impacts.

4. Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections

which would operate from 0.86 to 0.90, and 0.01 for intersections operating at anything lower.

Cities within the project region have similar thresholds of significance as those presented above for the counties of Ventura and Santa Barbara.

**Impact Discussion:**

a. The proposed projects would have the potential to result in more than one PHT as a result of the movement of equipment materials and workers to any of the project sites during the construction phases or periodic sand/material movement during the operational phase of a project. Presently it is not certain which roadways would be utilized. However, it is not uncommon for intersections including U.S. Highway 101 on- and off-ramps to experience unacceptable levels of service. Thus the project would have the potential to result in significant impacts to the existing street system.

b. The projects would result in the generation of heavy truck trips for the movement of equipment and materials. Use of heavy trucks and possibly access of construction equipment from roads to work sites may result in damage to pavement, curbs and gutters. This is considered a potentially significant impact.

c. During the construction and periodic maintenance phases of the projects are expected to require minimal parking for construction personnel and possibly the staging of equipment. The projects would be required to obtain temporary construction easements for staging of equipment and material. For the Regional Sediment Management Stockpile and Processing Center it is expected that parking requirements for project personnel would be available onsite. However, it is anticipated that substantial truck traffic could occur during periods of sediment delivery or transport from the site. Under a worst case scenario (as fully described in Section 4.12, Noise), when the maximum sediment capacity is being delivered to the site, about 60 trips per day would occur for 18 days. As such there may be occasion for several trucks to queue at the site. It is anticipated that these vehicles would be accommodated on-site.

d. The proposed project would not result in significant transit- or transportation-related impacts as it is comprised of sediment management projects.

e. The project would introduce structures to the ocean floor that may interfere with recreational boat traffic and create a safety hazard. Additionally, during construction of the marine structures, offshore construction activities may present a potential safety hazard to boat traffic. The transport of rock or other material to the various sites will require vessels to transit within existing vessel corridors, however the number of additional vessels required for the project is not considered significant. Should project-related vessels not utilize established transit corridors, be improperly lit, or disregard USCG navigation requirements, the chance of collision with other vessels increases.

The Regional Sediment Management Stockpile and Processing Center is located adjacent to the Union Pacific Railroad tracks. As such it would need to be properly designed to ensure that vehicles, materials or other project elements would not encroach into the railroad right-of-way.

The Project is not located in proximity to an airport and would not impact air traffic.

f. Please see Section 4.14 (b) Recreation. The projects will result in increased transportation of equipment and material on local roadways during construction and, in some cases, for longer periods which could present a safety hazard to motorists, pedestrians and bicyclists. However, with compliance with all necessary permits (e.g., haul permits, encroachment permits), and through the use of standard precautions (e.g., traffic control signage and flagmen), this temporary project impact is expected to be less than significant. Long-term impacts to the bike trail at the Regional Sediment Management Stockpile and Processing Center would be potentially significant.

g. No permanent land based facilities are proposed with the exception of the Regional Sediment Management Stockpile and Processing Center. This site is located at the end of Old Rincon Highway (Highway 1). Because access to the site is directly from this road, site distance should not be a problem and emergency access is available. However the adequacy of the road to provide adequate ingress and egress for truck traffic in both directions with the proposed development is uncertain at this time and should be evaluated as part of a traffic study.

h. State highways and major arterials are part of the Congestion Management Plan (CMP) systems in Ventura and Santa Barbara Counties. The project may impact CMP system roads as described for item (a) above.

**Mitigations and Residual Impact:**

a. The following mitigation measures would be required to reduce impacts discussed in (a) to less than significant.

**TRA-1** Unless it can be demonstrated through the results of an approved project-specific traffic study that a project will not result in significant impacts to the street system, or that less stringent mitigation (e.g., reduced timing restrictions as appropriate be geographical area, timing restriction for only specific intersections and streets, etc.), project trips will be scheduled to occur outside of peak hours (6:30 to 9:30 a.m. and 3:30 to 6:30 p.m. on weekdays),.

**TRA-2** Each project will be responsible for paying any applicable transportation mitigation fees.

b. The following mitigation is would reduce potential impacts discussed in (b) to less than significant.

**TRA-3** During hauling operations, proper precautions shall be taken to protect all pavements, curb and gutter, sidewalks and drainage structures from damage. Any traffic-related damage associated with the project's operations, shall be replaced in accordance with current Standard Construction Details and/or in a manner acceptable to the impacted jurisdiction (e.g. county or city transportation department or Caltrans).

c. Assuming the projects obtained all necessary construction easements and authorizations, not impacts on parking are anticipated. Therefore, no mitigation is required.

d. No transit impact would result. Therefore, no mitigation is required.

e. The following measures would reduce impacts discussed in (e) related to vessel and rail traffic hazards to less than significant.

**TRA-4** The National Oceanic and Atmospheric Administration (NOAA), US Coast Guard, and local harbormasters shall be notified regarding the installation of structures onto the ocean floor for inclusion on all future nautical charts, for inclusion in the Notice to Mariners, and to notice local boaters of pending offshore activities.

**TRA-5** A Local Notice to Mariners shall be filed with the U.S. Coast Guard and posted in the harbormaster's office of local harbors no less than 15 days prior to the start of work for each project with an offshore component. This notice will inform local boaters of the potential navigational hazards at the marine work site temporarily created by the construction operations.

**TRA-6** Offshore project equipment (e.g., derrick barge, support vessels, and buoys) will be marked in accordance with the United States Code of Federal Regulations, Title 33, Chapter 34, Subchapter I, Part C and the publication titled Private Aids to Navigation.

**TRA-7** When under tow at nighttime, the derrick barge or support vessel will be marked with sidelights and a sternlight in accordance with US Coast Guard requirements.

**TRA-8** The Regional Sediment Management Stockpile and Processing Center site design shall include measures (e.g., fencing and signage) that will ensure project operations do not encroach into the railroad right-of-way.

f. Mitigation measure REC-.6 would reduce the impact to less than significant.

g. The following mitigation measure reduce impacts discussed in (g) to a less than significant level.

**TRA-9** A project-specific traffic study shall be prepared for the Regional Sediment Management Stockpile and Processing Center by a qualified Transportation

Engineer prior to project approval. The project site shall not be approved, unless it can be demonstrated by the study that adequate ingress/egress exists or can be developed (e.g., road widening, striping, etc.) for the project and that all traffic-related impacts are less than significant or can be reduced to les than significant through measures such as by placing restrictions on timing or routing of trips.

h. Mitigation measures provided under (a) and (g) above would reduce CMP system impacts to less than significant.

## 4.16 Water Resources/Flooding

| Will the proposal result in: | Poten. Signif. | Less than Signif. With Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **a.** Changes in currents, or the course or direction of water movements, in either marine or fresh waters? | | | X | | |
| **b.** Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff? | | | X | | |
| **c.** Change in the amount of surface water in any water body? | | | X | | |
| **d.** Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution? | | X | | | |
| **e.** Alterations to the course or flow of flood water or need for private or public flood control projects? | | X | | | |
| **f.** Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion? | | | X | | |
| **g.** Alteration of the direction or rate of flow of groundwater? | | | | X | |
| **h.** Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference? | | | | X | |
| **i.** Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin? | | | | X | |
| **j.** The substantial degradation of groundwater quality including saltwater intrusion? | | | | X | |
| **k.** Substantial reduction in the amount of water otherwise available for public water supplies? | | | | X | |
| **l.** Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water? | | | X | | |

**Setting:**

The project area comprises the marine waters between Point Conception and Point Mugu along the northern portion of the Santa Barbara Channel and various streams and coastal estuaries between those two promontories. Point Conception, a rocky headland that marks the beginning of the Southern California Bight, is the northernmost boundary of the study region. Cold waters from central California and warm waters from southern California contribute to a diverse array of marine life in this location. The coastline trends eastward along the Santa Barbara coastline from this point, paralleling the Santa Barbara Channel just offshore. This portion of the coast is relatively protected from ocean swells by the northern Channel Islands, and thus hosts unique marine life such as soft bottom kelp. A number of streams empty into the sea along the coastline, as well as larger rivers including the Ventura and Santa Clara rivers further south. Some of these waterways terminate in estuaries, such as Goleta Slough, Malibu Lagoon, and Mugu Lagoon.

The marine waters within the project area are dominated by a counter-clockwise circulating gyre called the Southern California Eddy. This oceanographic feature is comprised of a complicated set of seasonally varying currents, but generally forms when the southward-moving California Current bends shoreward near San Diego and northward along the Southern California Bight as the Southern California Counter Current. Superimposed upon this general pattern, several smaller currents and eddies exist. The Southern California Eddy is most well developed in the summer/fall months and less developed during the winter/spring. In addition, the smaller eddy and current patterns also vary seasonally. The general circulation pattern of the Santa Barbara Channel is described as a persistent cyclonic (clockwise) gyre that occupies the western and central parts of the Channel during all seasons. Mean currents are directed westward along the north shore of the Channel and eastward along the north side of the Channel Islands.

**Environmental Thresholds:**

According to Santa Barbara and Ventura County water resources significance criteria, a project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use (defined as the total consumptive demand adjusted for recharge less discontinued historic use) exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant. In addition, Ventura County specifies that a potentially significant impact to water resources could result from land use projects that propose the use of groundwater in any capacity and are located and within two miles of the boundary of a former or current test site for rocket engines. Those projects will be required to test for perchlorate and trichloroethylene (TCE).

An additional Santa Barbara County consideration relates to the potential significant effect on water resources for projects that result in a net increase in pumpage from a well would that could substantially affect production or quality from a nearby well.

In general, Santa Barbara and Ventura counties indicated that a significant water quality impact is presumed to occur if the project would result in discharges that result in the receiving waters exceeding Ocean Plan or Basin Plan criteria or if groundwater aquifers are affected. Specifically, projects that could result in significant impacts to water quality are those that:

1. Are located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;

2. Increases the amount of impervious surfaces on a site by 25% or more;

3. Result in channelization or relocation of a natural drainage channel;

4. Result in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;

5. Are an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);

6. Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses (that include recreation, agricultural supply, groundwater recharge, fresh water habitat, estuarine habitat, support for rare, threatened or endangered species, preservation of biological habitats of special significance) of a receiving water body;

7. Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or

8. Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

**Impact Discussion:**

a. The beach enhancement projects would result in the placing of submerged offshore rock structures and sand onto the beaches. The offshore structures are designed to alter the current flow and natural wave action to reduce beach erosion and increase sand retention. This alteration is considered a local phenomenon and is not considered significant on a regional basis. The

predominant west to east longshore current within the region will not be substantially altered by the proposed projects.

b., c. The project would create minor amounts of additional storm water runoff as a result of newly constructed impermeable surfaces (i.e. structures, laydown areas, etc.). Construction activities such as grading could also potentially create temporary runoff and erosion problems. Application of standard County grading, erosion, and drainage-control measures would ensure that no significant increase of erosion or storm water runoff would occur.

d. Short-term turbidity increases, associated with vessel anchoring, slurry pipeline placement, slurry discharge onto the beach, and offshore sand excavation could be expected during construction activities. In addition, without mitigation, sediment-laden water could flow from laydown sites and temporary construction access routes. Additional water quality degradation could occur from excavation of offshore sand sources and from the discharge of effluents and/or accidental petroleum releases.

e. The proposed projects are beach enhancement activities which utilize permeable sand and are not, therefore, expected to result in the alteration of the course or flow of flood water or need for private or public flood control projects. The use of onshore sand that has accumulated within existing flood control basins for beach restoration could enhance and improve flood water flow by increasing the storage capacity of those retention basins. As discussed in the Geologic Processes section (see Section 4.8 above) grading and buildings at the Regional Sediment Management Stockpile and Processing Center site could alter stormwater flows.

f. As designed, the projects will provide additional erosion, tsunami, and sea level rise protection through the expansion or retention of existing sandy beaches. The construction and operation of the Regional Sediment Management Stockpile and Processing Center site will not result in a significant increase in exposure of site personnel to water related hazards such as flooding.

g., j. The project would not result in impacts on ground water quality, including altering the direction or course of ground water flow or the volume, or quality of existing groundwater aquifers. There is an adequate supply of water for the project and the project would not contribute to overdraft of groundwater resources.

k. The proposed project will utilize water from various sources, but will not result in a substantial reduction in the amount of water otherwise available for public water supplies. Small amounts of drinking water will be needed during construction activities which will be provided by the construction contractor. Operational water requirements will be limited to drinking water and minimal irrigation at the Regional Sediment Management Stockpile and Processing Center site. The vegetation proposed for the Oxnard Shores project will be plants tolerant of sand habitat and drought tolerant.

l. As described in (d) above, potential pollutant sources include contaminated sediment for beach replenishment, contaminated runoff from temporary laydown sites and access routes, and from accidental discharges from offshore vessels or construction vehicles. Through the incorporation of recommended mitigations listed below, these impacts are expected to be reduced to less than significant. Additional details on the specific impacts and recommended mitigations will be provided in the environmental document.

**Mitigation and Residual Impact:**

The following mitigation measures would reduce the project's water resource impacts to a less than significant level:

a.-c. Impacts would be less than significant. No mitigation required.

d. In addition to completing mitigation HAZ-2, the following mitigation measure reduces impacts discussed in (d) to a less than significant level.

**WTR-1** Prior to excavation of onshore or offshore sand sources, test the sediment for grain size and contaminant levels in accordance with EPA and RWQCB requirements. Do no utilize sediment that is not compatible with existing sand beach grain size or that will result in the introduction of contaminants that exceed the Ocean Plan or other applicable water quality criteria.

e. The following mitigation measure reduces impacts discussed in (e) to a less than significant level.

**WTR-2** Determine the potential flood hazard for the Regional Sediment Management Stockpile and Processing Center site and institute design specifications for the hazard level. Also, institute mitigation GEO-3, which will reduce surface water runoff and erosion of surface soil from onshore laydown sites and beach access routes and within that site.

f.-k. Impacts would be less than significant. No mitigation required.

l. Instituting mitigations HAZ-5 and HAZ-6 reduces impacts discussed in (l) to a less than significant level.

With the incorporation of these measures residual impacts would be less than significant.

# 5.0 INFORMATION SOURCES

## 5.1 Persons Consulted

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Belluschi, Bruce, Manager Ventura County Public Works Department Integrated Waste Management Division (January 2010)

DeAngeles, Monica. NOAA, Long Beach, CA. (June 2008)

DeGeorge, Steve, Planning and Technology Director, Ventura County Transportation Commission (February 2010)

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# 6.0 MANDATORY FINDINGS OF SIGNIFICANCE

| Will the proposal result in: | Poten. Signif. | Less than Signif. with Mitigation | Less Than Signif. | No Impact | Reviewed Under Previous Document |
|---|---|---|---|---|---|
| **1.** Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory? | | | | | |
| **2.** Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals? | | | | | |
| **3.** Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.) | | | | | |
| **4.** Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | | | |
| **5.** Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR ? | | | | | |

# 7.0 PROJECT ALTERNATIVES

As currently identified, two alternatives, reducing the size and areal extent of the various projects and using onshore sand sources (truck transport of all beach sand), in addition to No Project will be considered in the analysis in the environmental document. Below is a summary of each of the three alternatives.

**No Project:** With this alternative, no onshore or offshore construction would be completed and the existing beach conditions would continue.

**Reduced Size:** As currently proposed, each project has a specific "footprint" and comprises specified structures that would be placed within the project site. The reduced size alternative would maintain the basic design for each project, but would reduce each in areal cover (i.e. smaller subsurface structures, less pre-fill sand, smaller site for the Regional Sediment Management Stockpile and Processing Center facilities).

**Onshore Sediment Supply:** This alternative would eliminate the excavation of offshore sand sources that would be used exclusively for beach restoration. The use of "sediment of opportunity" from ongoing dredging activities would be allowed, however no barge transport or offshore delivery of the sand would be included; all sand would be delivered via truck to the specified site.

# 8.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

**Summary of Coastal Act Policies**

Because many Coastal Act policies are applicable to the proposed project they are summarized below. Coastal Act policies pertaining to energy facilities tanker facilities, oil and gas development, refineries, electrical generation, public works, and housing are not relevant to the project and are not presented here. The policies presented in the Coastal Plans of local jurisdictions mirror and in some cases expand on Coastal Act policies. This section however does not include a summary of all of the relevant policies of the local jurisdictions. In the event that any of the projects considered in this document move forward toward development, a thorough review of project consistency with local plans and policies would be conducted prior to the issuance of discretionary approvals. A preliminary assessment of project consistency with relevant policies presented below will be provided in the CEQA document.

<u>Environmentally Sensitive Habitats</u>

§ 30230

"Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological

productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes."

§ 30231

"The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference of ground water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams."

§ 30233

(a) "The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource-dependent activities."

(b) "Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable longshore current systems."

(c) "In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled " Acquisition Priorities for the Coastal Wetlands of California" shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of South San Diego Bay, if otherwise in accordance with this division." "For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where such improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities."

(d) "Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area."

§ 30236

"Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible, and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat."

§ 30240

(a) "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas." (b) "Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas."

§ 30607.1

"Where any dike and fill development is permitted in wetlands in conformity with this division, mitigation measures shall include, at a minimum, either acquisition of equivalent areas of equal or greater biological productivity or open up equivalent areas to tidal action; provided, however, that if no appropriate restoration site is available, an in-lieu fee sufficient to provide an area of equivalent productive value or surface areas shall be dedicated to an appropriate public agency, or such replacement site shall be purchased before the dike or fill development may proceed. Such mitigation measures shall not be required for temporary or short-term fill or diking, provided that a bond or other evidence of financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time."

Archaeological and Paleontological Resources

§ 30244

"Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

Shoreline Access

§ 30210

"In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse."

§ 30211

"Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation."

§ 30212

(a) "Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway."

(c) "Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution."

§ 30214

"Implementation of public access policies; legislative intent.

(a) The public access policies within this "Shoreline Access" section of the LCP in the Summary of Coastal Act Policies, shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) These public access policies shall be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies within this "Shoreline Access" section of the LCP, the County shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private

organizations which would minimize management costs and encourage the use of volunteer programs."

Recreation

§ 30213

"Lower cost visitor and recreational facilities; encouragement and provision; overnight room rentals. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred."

§ 30220

"Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses."

§ 30221

"Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area."

§ 30222

"The use of private lands suitable for visitor-serving commercial recreation facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry."

§ 30223

"Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible."

§ 30250(c)

"Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attractions for visitors."

Agriculture

§ 30241

"The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas' agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban uses.

(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.

(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.

(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.

(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality."

§ 30242

"All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (1) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands."

§ 30243

"The long-term productivity of soils and timberlands shall be protected, and conversions of coastal commercial timberlands in units of commercial size to other uses or their division into units of noncommercial size shall be limited to providing for necessary timber processing and related facilities."

§ 30250(a)

"New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the acreage size of surrounding parcels."

§ 30411(c)

"The Legislature finds and declares that salt water or brackish water aquaculture is a coastal dependent use which should be encouraged to augment food supplies and to further the policies set forth in Chapter 4 (commencing with Section 825) of Division 1. The Department of Fish and Game may identify coastal sites it deems appropriate for aquaculture facilities. If the department identifies such sites, it shall do so by October 1, 1980, and shall by the same date transmit information identifying such sites to the commission and the relevant local government agency. The commission, and where appropriate, local governments shall, consistent with the coastal planning requirements of this division, provide for as many coastal sites identified by the Department of Fish and Game for such uses as are consistent with the policies of Chapter 3 (commencing with Section 30200) of this division."

Commercial Fishing and Recreational Boating

§ 30224

"Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land."

§ 30234

"Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry."

§ 30234.5

“The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.”

§ 30255

"Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent development shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support."

Hazards

§ 30253

"New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazards.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs."

§ 30236

"Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Beach Erosion and Shoreline Structures

§ 30235

"Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible."

§ 30253

"New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structure integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs."

Locating and Planning New Development

§ 30244

"Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

§ 30250(a)

"New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it, or where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels."

§ 30252

"The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and (6) by assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provisions of onsite recreational facilities to serve the new development."

## 9.0 DETERMINATION: (To be completed by the Lead Agency)

**On the basis of the Initial Study, BEACON:**

____ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

____ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

__X__ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas: To be determined in PEIR.

_____ With Public Hearing _____ Without Public Hearing

**PROJECT EVALUATOR:**_____ **DATE:** _____

**SIGNATURE:** _____

## 10.0 ATTACHEMENTS

A. Figures

B. Draft Sand Use Ordinance

C. Noise Support Documentation

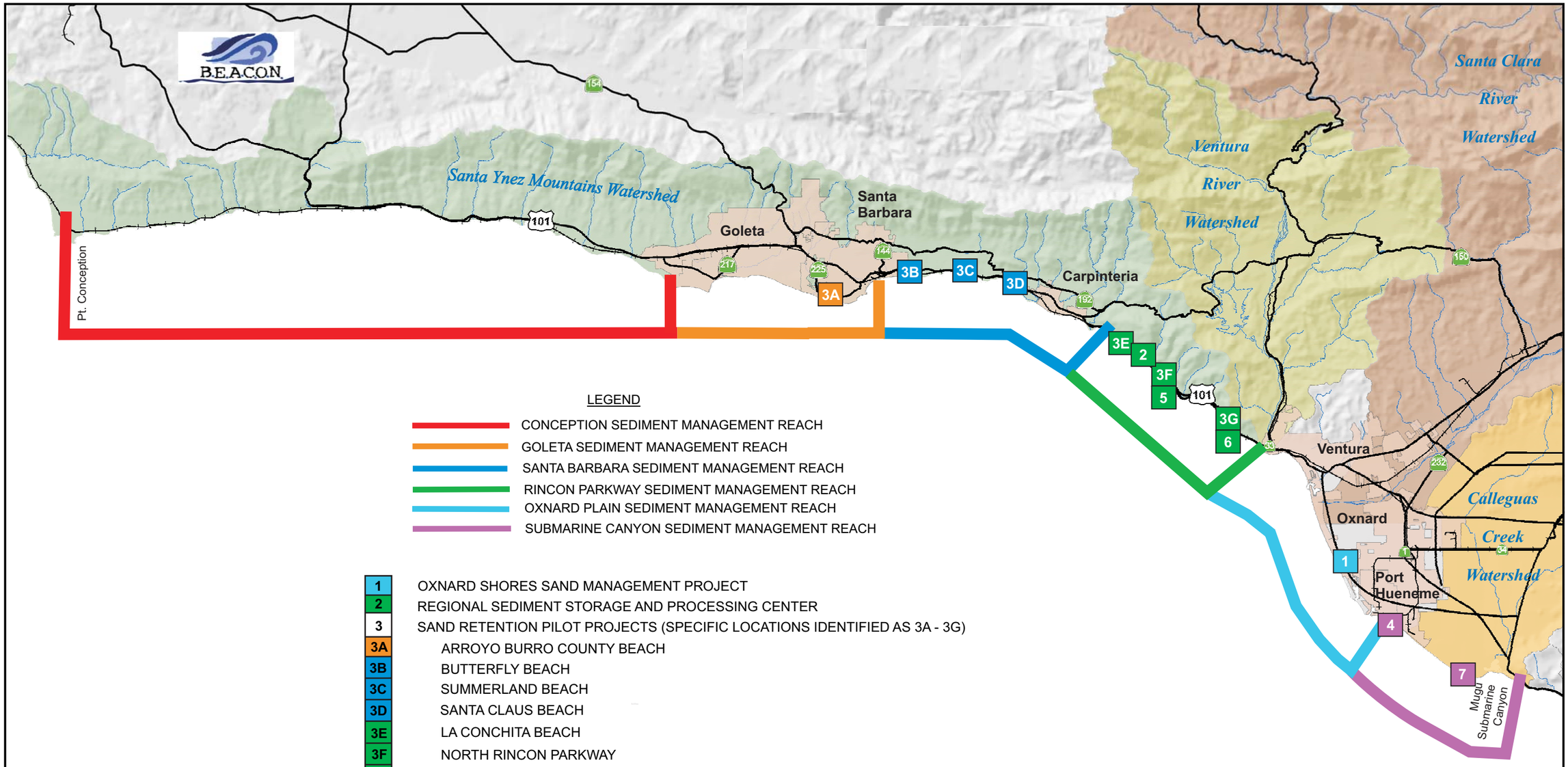
ATTACHMENT A


SOURCE: BEACON (2009)

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

**BEACON JURISDICTIONS AND COASTLINE**
**FIGURE 1-1**

November 2009
Project No. 0702-2082




**SOURCE**: Adapted from BEACON (2009)

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS



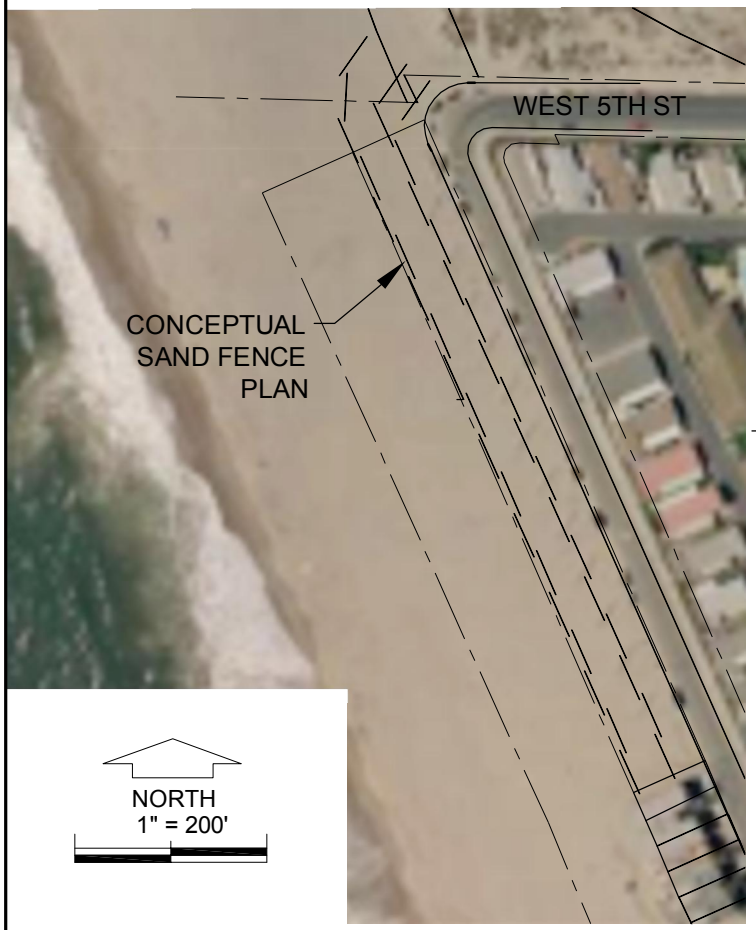
**LOCATION OF PROJECT COMPONENTS**
**FIGURE 1-2**

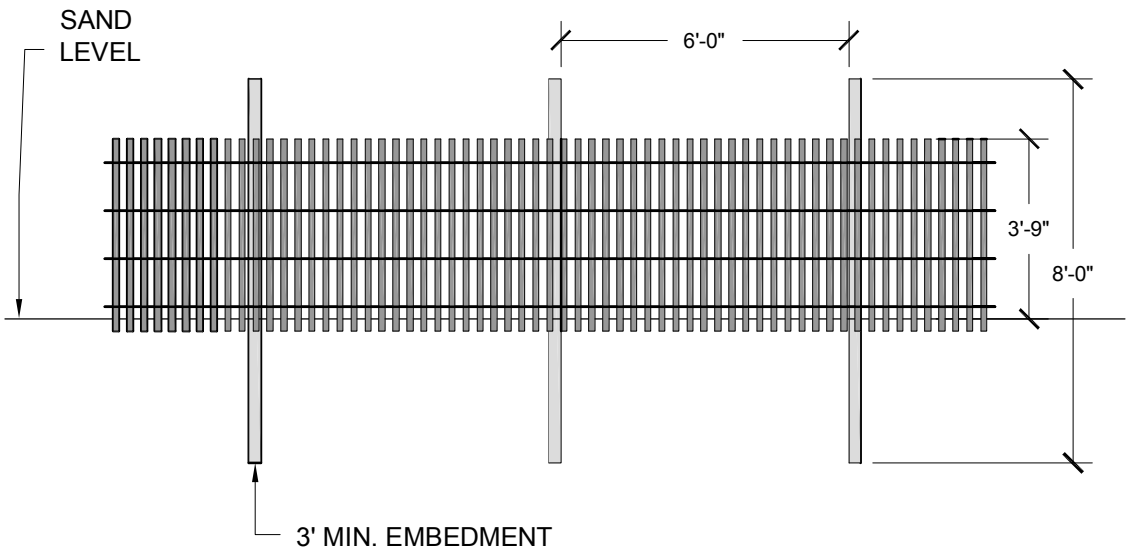
November 2009
Project No. 0702-2082


SOURCE: Noble Consultants Inc.

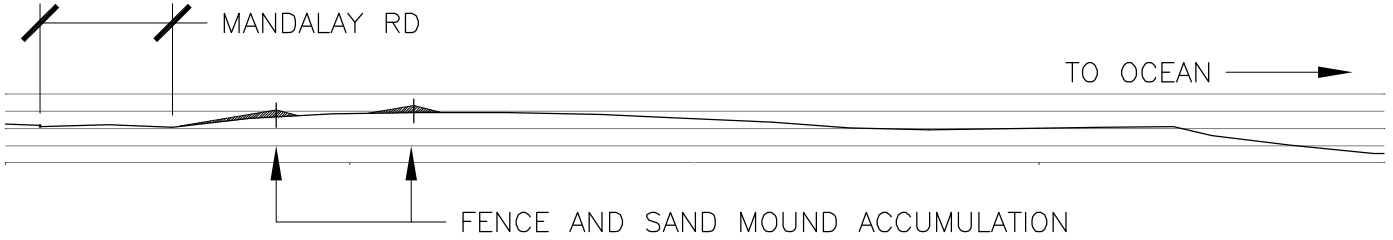
padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**OXNARD SHORES SAND MANAGEMENT**
**FIGURE 1-3**




TYPICAL SAND FENCE ELEVATION




TYPICAL BEACH PROFILE

SOURCE: Noble Consultants Inc.



**SAND FENCE DETAILS**
**FIGURE 1-4**


SOURCE: Noble Consultants Inc.

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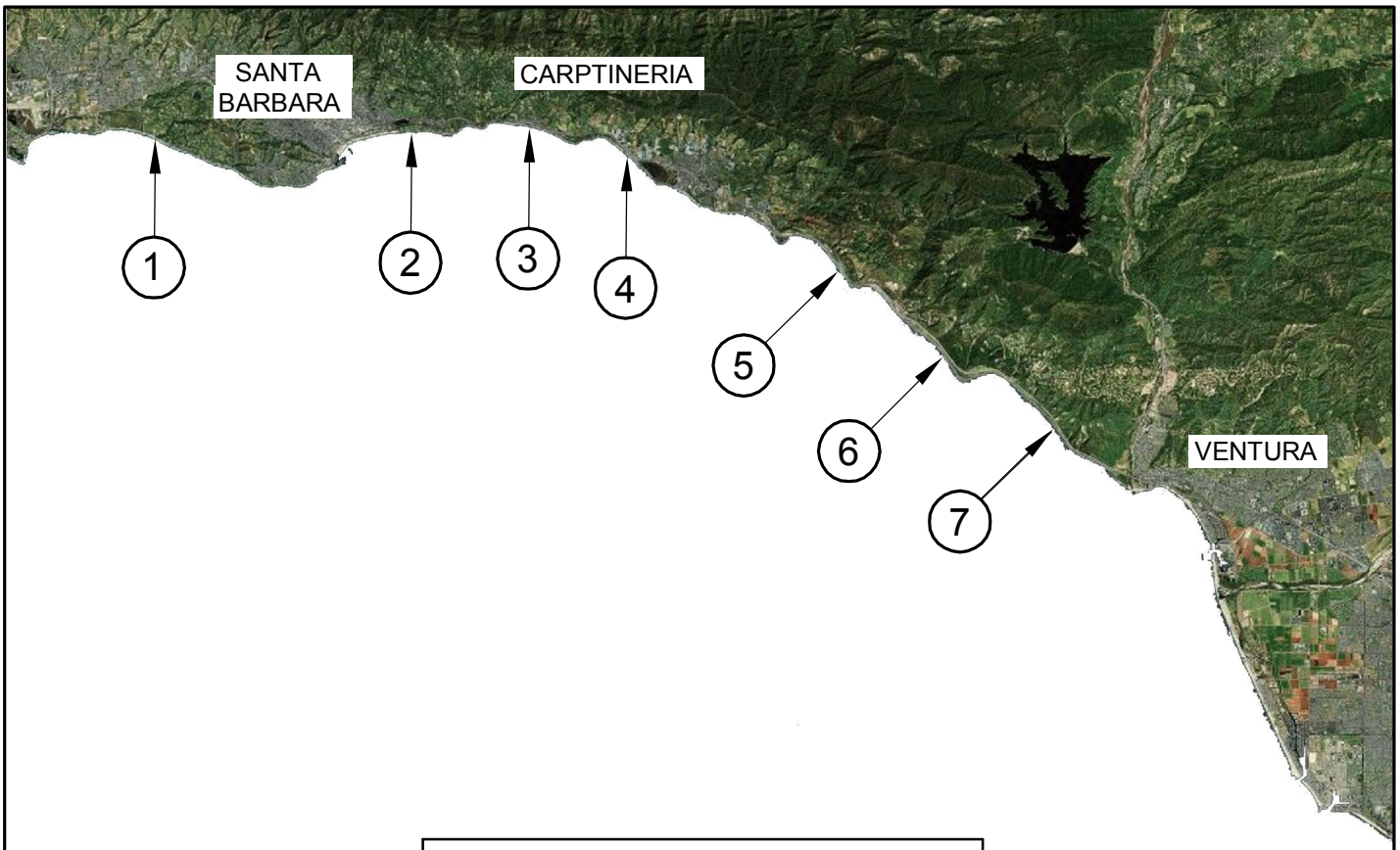
**REGIONAL SEDIMENT STORAGE AND PROCESSING CENTER SITE**
**FIGURE 1-5**

November 2009
Project No. 0702-2082




| CANDIDATE SAND RETENTION SOLUTION PILOT PROJECT LOCATIONS | |
|---|---|
| 1 | ARROYO BURRO BEACH |
| 2 | BUTTERFLY BEACH |
| 3 | SUMMERLAND BEACH |
| 4 | SANTA CLAUS BEACH |
| 5 | LA CONCHITA BEACH |
| 6 | NORTH RINCON PARKWAY |
| 7 | SOUTH RINCON PARKWAY |

NORTH
1" = ~5 Miles

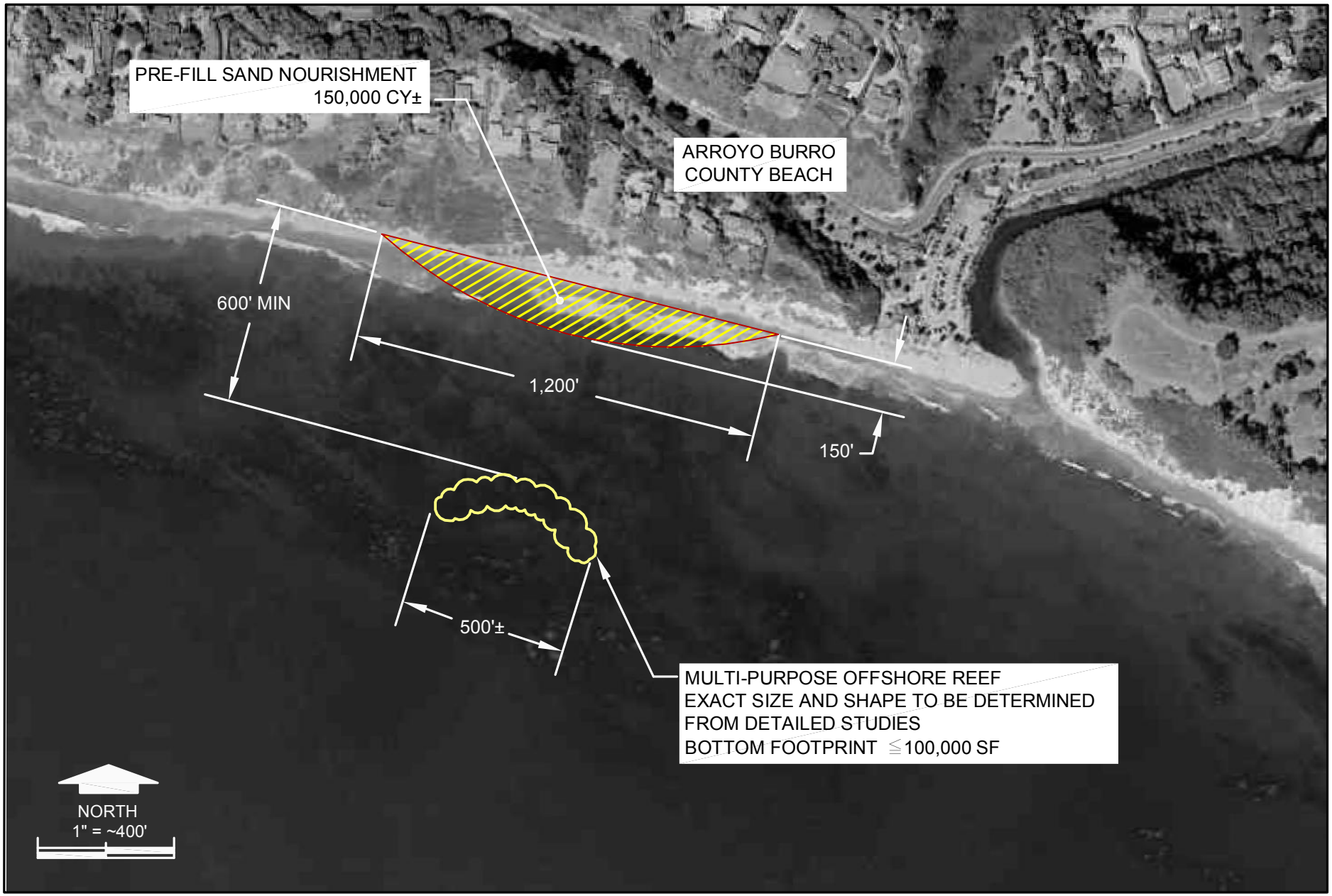
SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**PROPOSED LOCATIONS FOR SAND RETENTION PILOT PROJECTS**

**FIGURE 1-6**

November 2009
Project No. 0702-2082

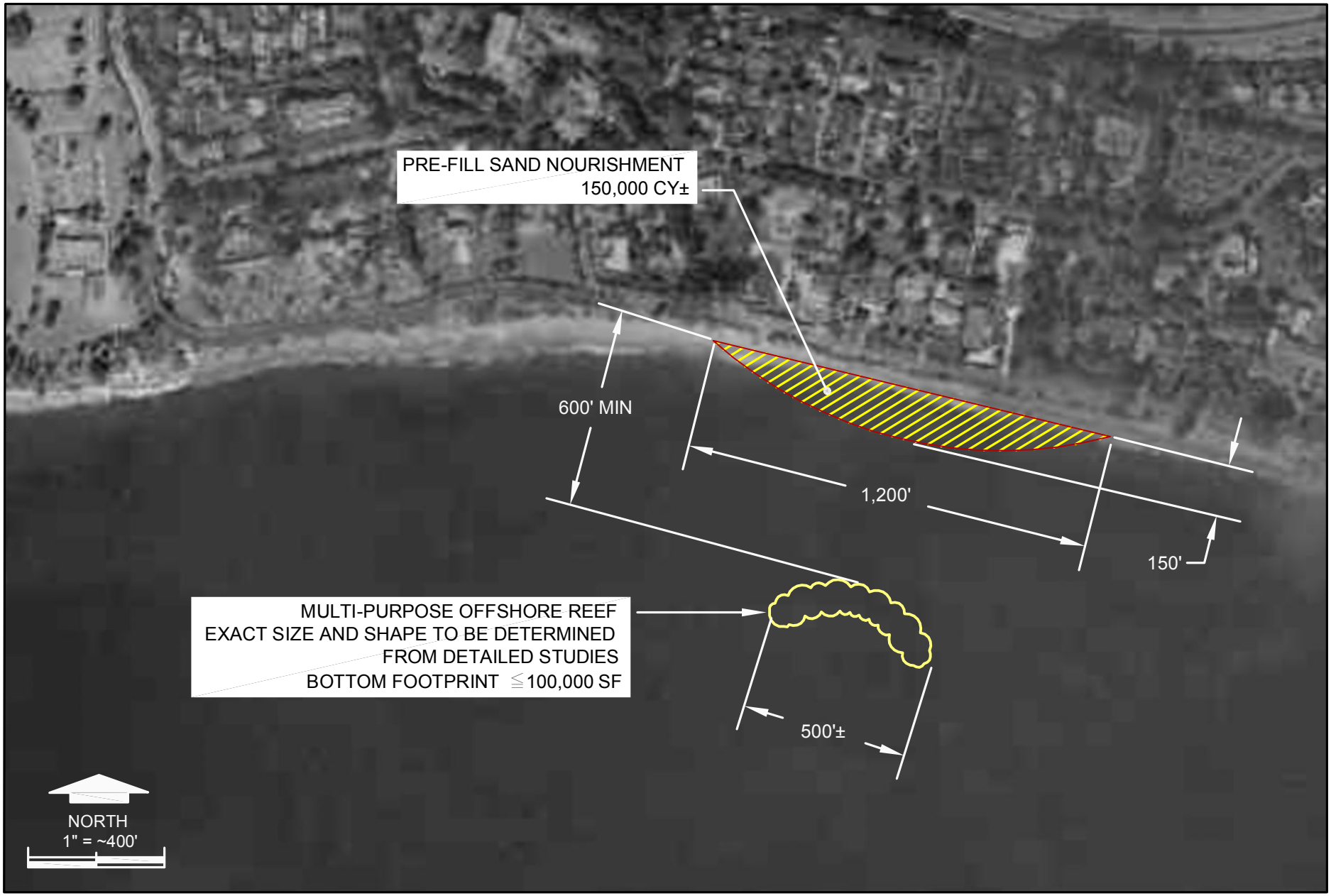



SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**SAND RETENTION PILOT PROJECT**
**- ARROYO BURRO BEACH**
**FIGURE 1-7**

November 2009
Project No. 0702-2082




SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

BEACON CRSMP PEIR

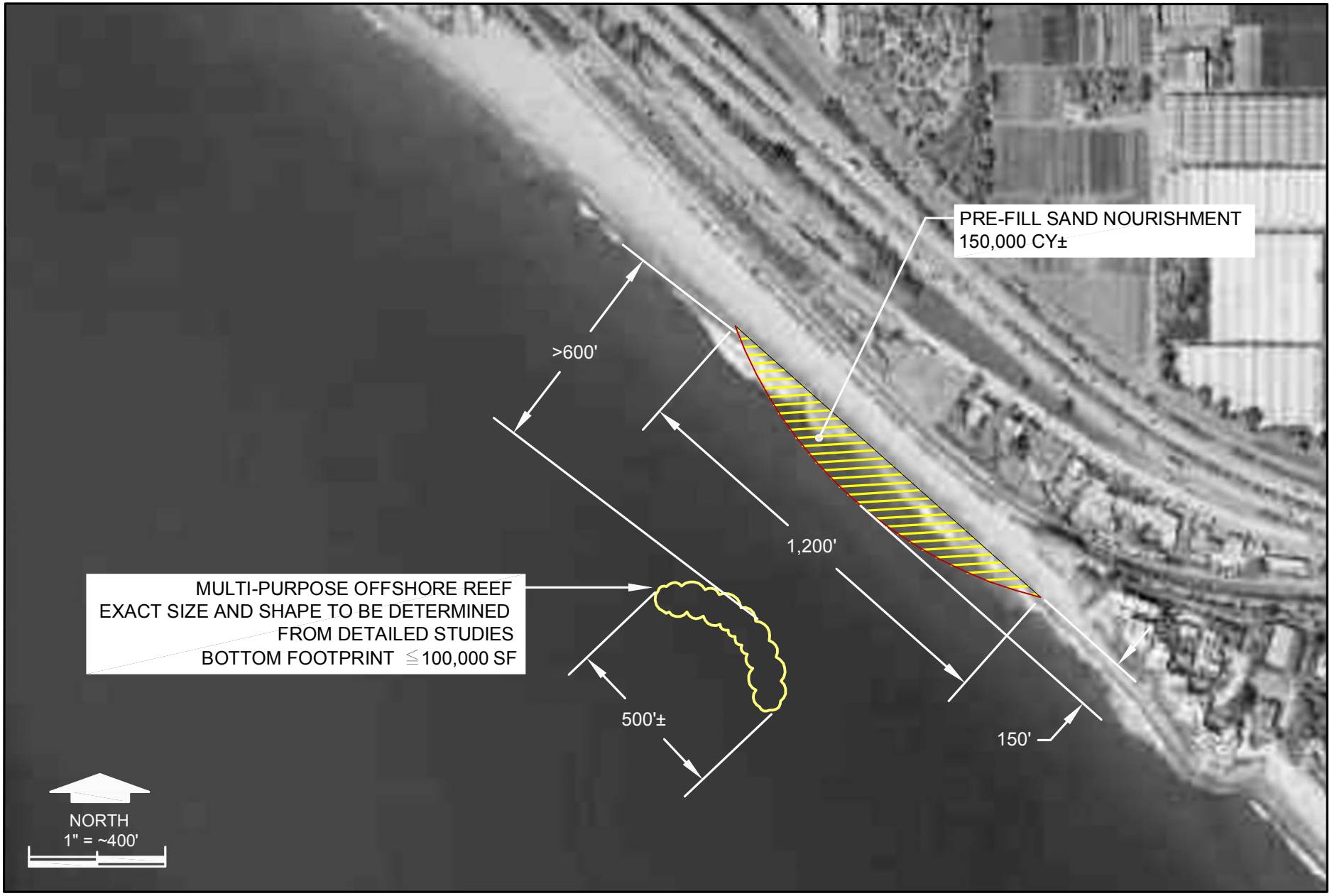
**SAND RETENTION PILOT PROJECT**
**-BUTTERFLY BEACH**
**FIGURE 1-8**


SOURCE: Noble Consultants Inc.



**SAND RETENTION PILOT PROJECT**
**-SUMMERLAND BEACH**
**FIGURE 1-9**

November 2009
Project No. 0702-2082




SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

BEACON CRSMP PEIR

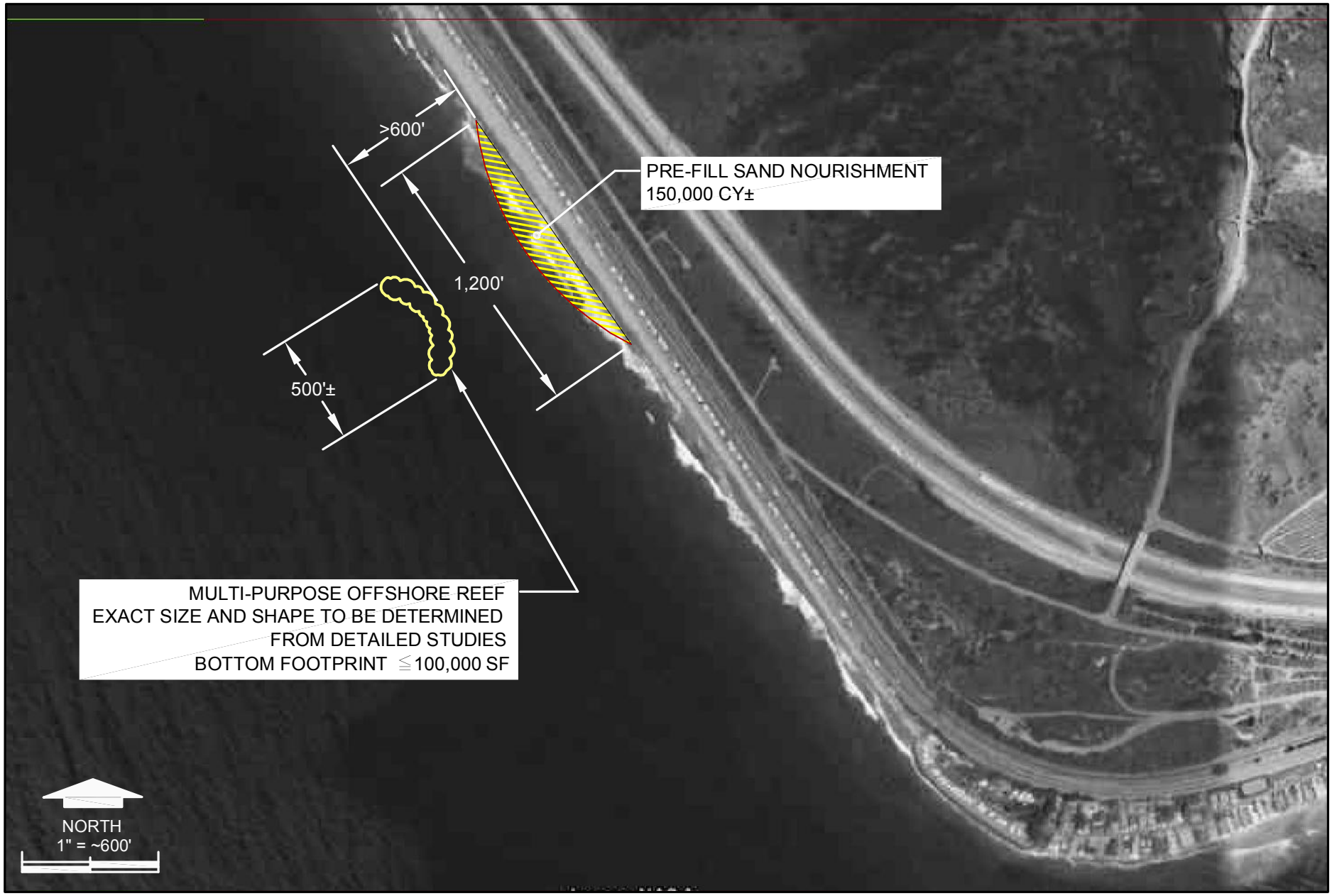
**SAND RETENTION PILOT PROJECT**
**-SANTA CLAUS BEACH**
**FIGURE 1-10**

November 2009
Project No. 0702-2082


SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**SAND RETENTION PILOT PROJECT**
**-LA CONCHITA BEACH**
**FIGURE 1-11**




SOURCE: Noble Consultants Inc.



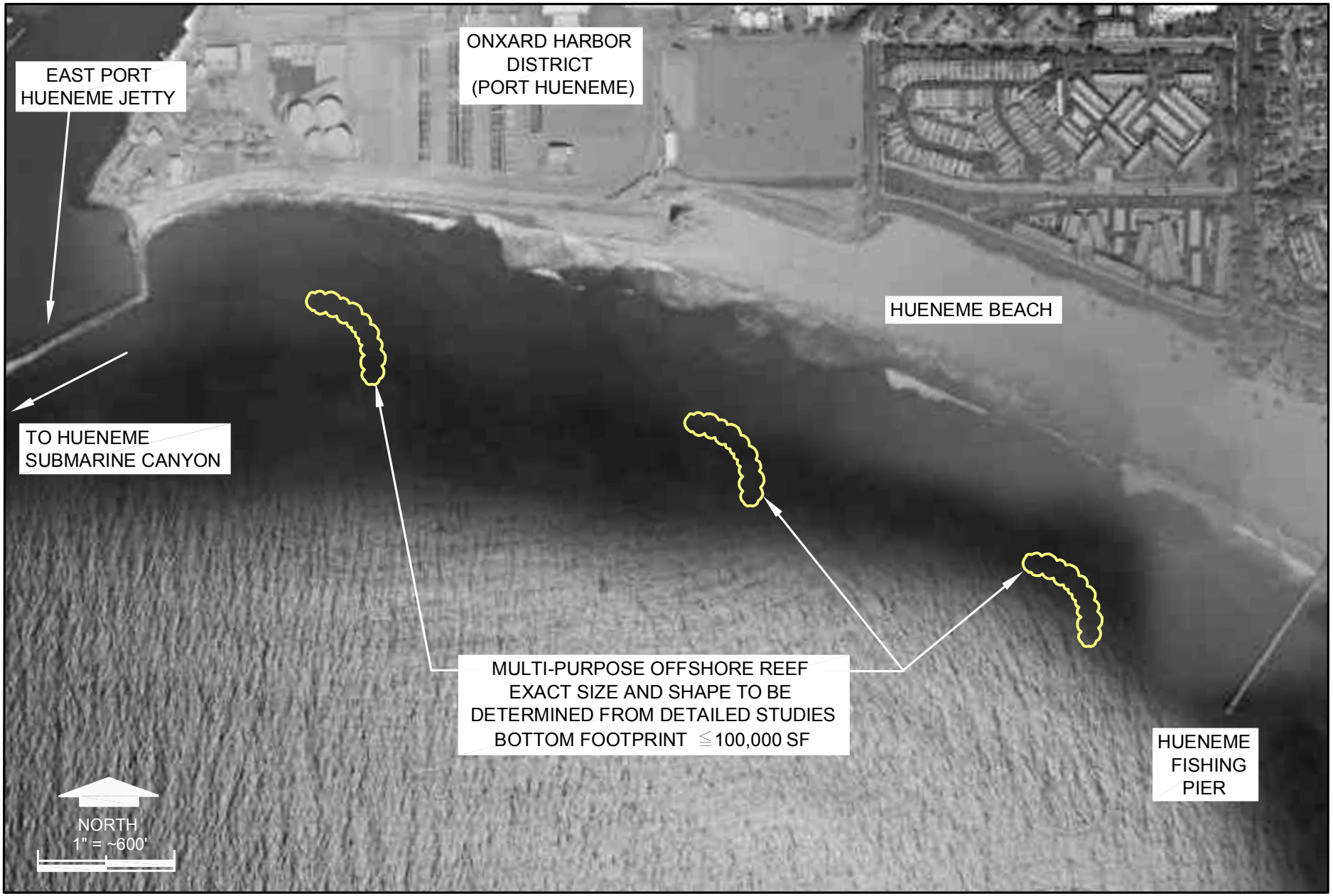
**SAND RETENTION PILOT PROJECT**
**-NORTH RINCON PARKWAY**
**FIGURE 1-12**


SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**SAND RETENTION PILOT PROJECT**
**-SOUTH RINCON PARKWAY**
**FIGURE 1-13**

November 2009
Project No. 0702-2082

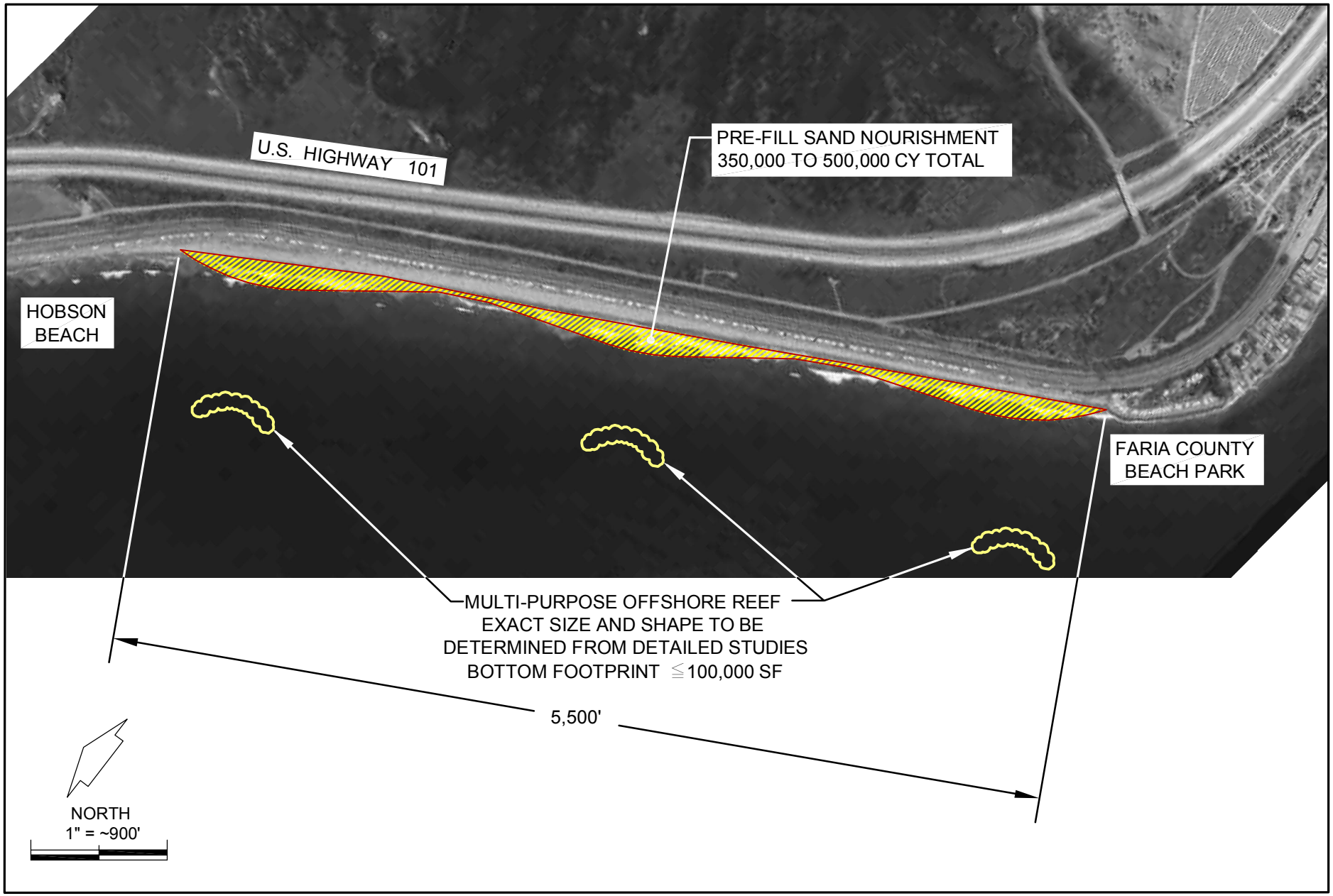



SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**WEST HUENEME BEACH RENOURISHMENT LONGEVITY IMPROVEMENT PROJECT**
**FIGURE 1-14**

November 2009
Project No. 0702-2082

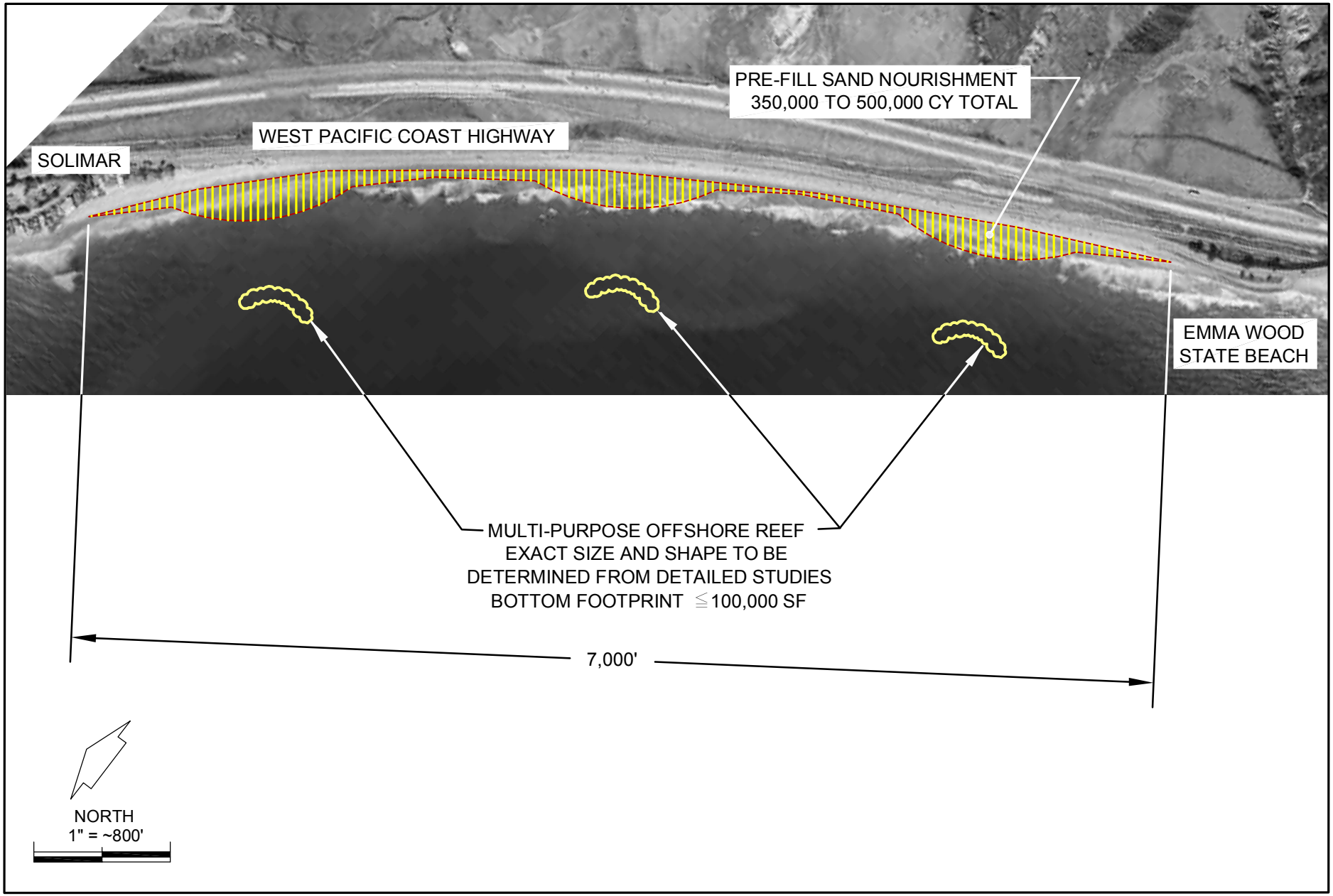



SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**SOUTH RINCON PARKWAY SHORELINE RESTORATION PROJECT**
**FIGURE 1-15**

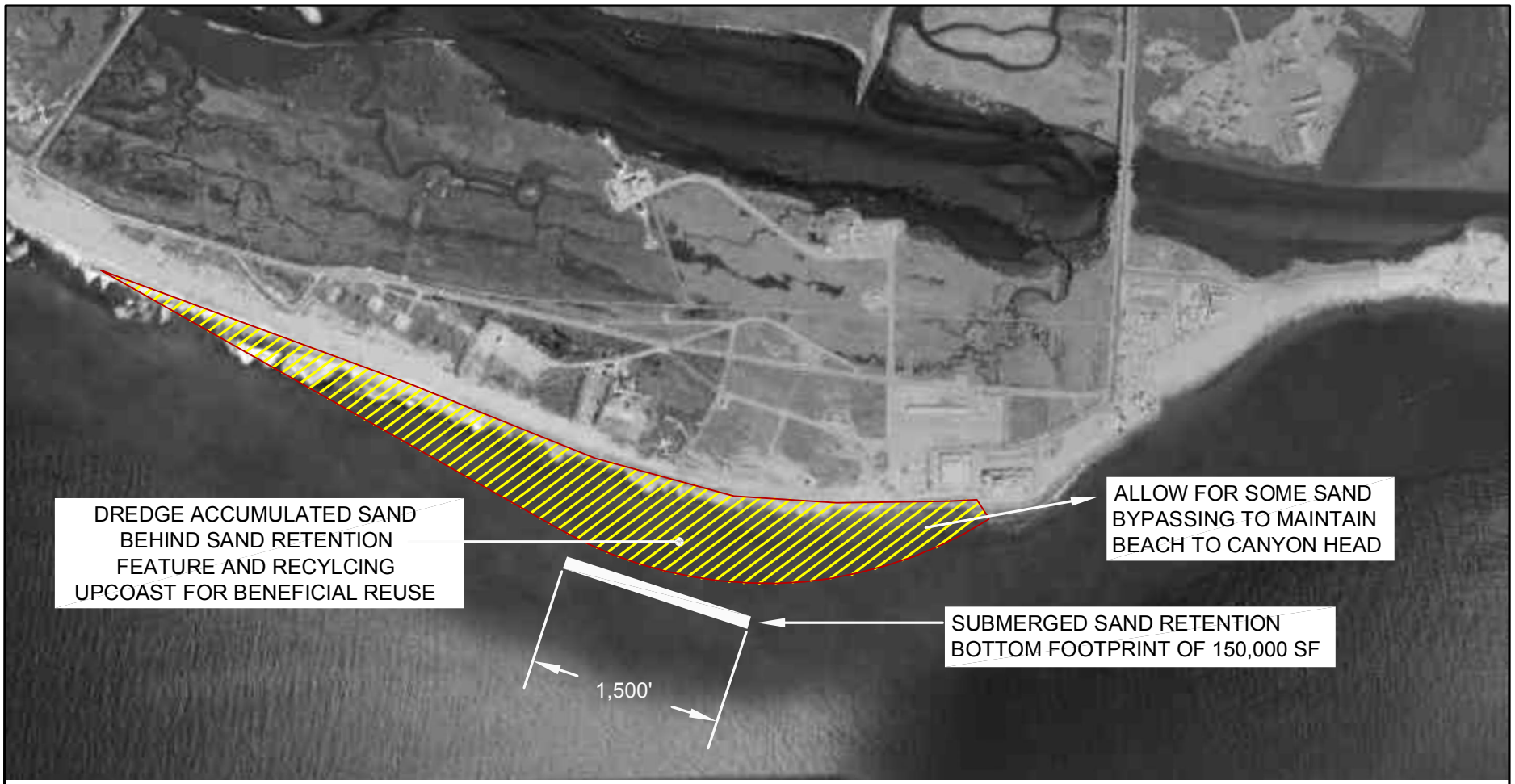
November 2009
Project No. 0702-2082




SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
BEACON CRSMP PEIR

**NORTH RINCON PARKWAY SHORELINE RESTORATION PROJECT**
**FIGURE 1-16**




SOURCE: Noble Consultants Inc.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS



**SAND CAPTURE AT MUGU SUBMARINE CANYON PROJECT**

**FIGURE 1-17**

ATTACHMENT B

ORDINANCE NO. _____.

AN ORDINANCE REQUIRING CONSIDERATION AND MITIGATION OF LOSS OF SAND RESOURCES FOR BEACH NOURISHMENT IN PUBLIC AND PRIVATE PROJECTS

The Board of Supervisors of the County of _____ [City Council of the City of _____] finds that public and private projects which impact or remove sand, gravel and cobble resources from coastal watersheds have the effect of diminishing sand resources for our beaches and that failure to provide for mitigation of this loss will severely impact our beach and coastal resources and ordains as follows:

SECTION 1. Sections ___ and ____ of the County/City Code is hereby adopted as follows:

Section _____ - Public Projects Involving Sand and Gravel Resources

Every capital improvement or public works project undertaken by or for the County/City shall comply with the following:

A. The project planning documents and environmental impact consideration therefore for every such project shall include a consideration of whether the project will remove sand, cobble or gravel from its present location, or alter the ability of sand, gravel or cobble to migrate through the watershed and provide sand, gravel or cobble nourishment to the beach ecosystem and littoral region.
B. If a project is determined to impact beach nourishment in the littoral region, a further determination shall be made as to what provisions should be included in the project to mitigate the impact to beach nourishment or provide alternative nourishment to the beaches in the littoral region served by the watershed.
C. Any project involving the removal or moving of sand or cobble material from the project site shall have a priority requirement for delivery of that material to a beach replenishment site established by the South Central Coast Beach Enhancement Program (SCCBEP) of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON). There shall be a specific determination of whether the material is appropriate for beach replenishment purposes and whether such delivery is feasible for the project. Projects involving less than 100 cubic yards of material are exempt from this subsection.
D. County/City staff shall consult with the staff of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) in making their determinations under subparagraphs A, B, and C above.
E. There shall be a report of the compliance of a project with the provisions of this section in every staff report for final consideration by the Board of Supervisors/City Council for every capital improvement or public works project proposed for approval.

Section _____ - Projects Involving Sand and Gravel Resources or Projects Impacting Sand Supply or Beach Nourishment

Every land use permit, grading permit, building permit, or other development permit or project for which application is made to or for which approval is needed from the County/City shall comply with the following:

A. The permit or project planning documents and environmental impact consideration therefore for every such permit or project shall include a consideration of whether the project will remove sand, cobble or gravel from its present location, or alter the ability of existing sand, gravel or cobble to migrate through the watershed and provide sand, gravel or cobble nourishment to the beach ecosystem and littoral region.
B. If a permit or project is determined to impact beach nourishment in the littoral region, a further determination shall be made as to what provisions should be included in the project to mitigate the impact to beach nourishment or provide alternative nourishment to the beaches in the littoral region served by the watershed. Such permit or project shall be conditioned appropriately to achieve this purpose.
C. Any permit or project involving the removal or moving of sand or cobble material from the project site shall have a priority requirement for delivery of that material to a beach replenishment site established by the South Central Coast Beach Enhancement Program (SCCBEP) of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON). There shall be a specific determination of whether the material is appropriate for beach replenishment purposes and whether such delivery is feasible for the project. Should delivery of the project material be deemed infeasible or should the delivery of the sand or gravel to another location be the purpose of the permit or project, there shall be an analysis of what alternative beach nourishment measures should be taken to mitigate the projects impact to the littoral region. Such permit or project shall be conditioned appropriately to achieve this purpose. Projects involving less than 100 cubic yards of material are exempt from this subsection.
D. County/City staff and applicants shall consult with the staff of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) in making the determinations and project plans under subparagraphs A, B, and C above.
E. There shall be a report of the compliance of a permitted activity or project with the provisions of this section in every staff report for final consideration by the Board of Supervisors/City Council for every such permit or project proposed for approval. Permits which do not require the approval of the Board of Supervisors/City Council shall note the compliance with this section in the project file.
F. Permits for projects involving a total cost of less than $_____ shall be exempted from the requirements of this section.

SECTION 2. This ordinance shall take effect and be in force thirty (30) days from the date of its passage and before the expiration of fifteen (15) days after its passage it, or a summary of it, shall be published once, together with the names of the members of the Board of Supervisors [City Council] voting for and against the same in the _____, a newspaper of general circulation published in the County of _____.

PASSED AND ADOPTED by the Board of Supervisors/City Council of the County/City of _____, State of California, this ____ day of _____, 2005, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Chair

ATTEST:

_____
Clerk

By_____
Deputy Clerk

Approved as to Form
County Counsel/City Attorney

By_____

ATTACHMENT C

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Oxnard Shores Sand Management
Receptor: Residence

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 50 | 83.0 | -4.8 | 83.0 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 50 | 78.0 | -4.8 | 78.0 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **84**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 54
ASSUMED NIGHTTIME AMBIENT: 48
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 80
ESTIMATED CNEL: 80

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 18-Jan-10
Scenario: Regional Sediment Management Stockpile and Processing Center
Receptor: 1,800 feet from edge of work activity

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.75 | 85 | 1800 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 0 | 0.50 | 83 | 550 | | | | | |
| D8 DOZER (enhanced enclosure, est.) | 2 | 0.75 | 82 | 2200 | 50.6 | 4.7 | 45.9 | 0.0 | 3 |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 2 | 0.73 | 78 | 2300 | 46.1 | 4.7 | 41.4 | 4.5 | 1.28 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 1 | 0.75 | 82 | 1800 | 50.1 | 4.7 | 45.5 | 0.5 | 2.8 |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

| | |
|---|---|
| TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): | **50** |
| ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: | 59 |
| ASSUMED NIGHTTIME AMBIENT: | 40 |
| NUMBER OF DAYTIME HOURS OPERATING: | 10 |
| NUMBER OF EVENING HOURS OPERATING: | 3 |
| NUMBER OF NIGHTIME HOURS OPERATING: | 9 |
| ESTIMATED Ldn: | 60 |
| ESTIMATED CNEL: | 60 |

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project (Arroyo Burro)
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 140 | 74.1 | 2.5 | 71.5 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 140 | 69.1 | 2.5 | 66.5 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **73**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 45
ASSUMED NIGHTTIME AMBIENT: 40
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 69
ESTIMATED CNEL: 69

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

Combining Noise

73 dBA - 60.1 dBA (combine) ≈ 13 ∴ add 0.3 to larger #

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project (Butterfly Beach)
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 120 | 75.4 | 2.0 | 73.4 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 120 | 70.4 | 2.0 | 68.4 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **75**

| | |
|---|---|
| ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: | 45 |
| ASSUMED NIGHTTIME AMBIENT: | 40 |
| NUMBER OF DAYTIME HOURS OPERATING: | 10 |
| NUMBER OF EVENING HOURS OPERATING: | 0 |
| NUMBER OF NIGHTIME HOURS OPERATING: | 0 |
| ESTIMATED Ldn: | 71 |
| ESTIMATED CNEL: | 71 |

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

Combining noise

75 dBA - 60.3 ≅ 15 ∴ add 0.2 to the larger #

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project (Summerland)
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 100 | 77.0 | 1.3 | 75.7 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 100 | 72.0 | 1.3 | 70.7 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **77**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 58
ASSUMED NIGHTTIME AMBIENT: 50
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 73
ESTIMATED CNEL: 73

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project Summerland
Receptor: Residences to west

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 900 | 57.9 | 4.5 | 53.4 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 900 | 52.9 | 4.5 | 48.4 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **55**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 54
ASSUMED NIGHTTIME AMBIENT: 48
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 57
ESTIMATED CNEL: 57

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project Santa Claus
Receptor: Residence

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 100 | 77.0 | 1.3 | 75.7 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 100 | 72.0 | 1.3 | 70.7 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **77**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 54
ASSUMED NIGHTTIME AMBIENT: 48
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 73
ESTIMATED CNEL: 73

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Sand Retention Pilot Project (La Conchita)
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 300 | 67.4 | 3.9 | 63.5 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 300 | 62.4 | 3.9 | 58.5 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **65**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 58
ASSUMED NIGHTTIME AMBIENT: 50
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 63
ESTIMATED CNEL: 63

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

Combining Noise
65 dBA - 58.4 3 7 ∴ add 0.8 to the higher #

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: Re-Nourishment West Hueneme Beach
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 450 | 63.9 | 4.2 | 59.7 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 450 | 58.9 | 4.2 | 54.7 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **61**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 48
ASSUMED NIGHTTIME AMBIENT: 45
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 58
ESTIMATED CNEL: 58

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: North Rincon Parkway Shore Restoration
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 900 | 57.9 | 4.5 | 53.4 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 900 | 52.9 | 4.5 | 48.4 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **55**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 54
ASSUMED NIGHTTIME AMBIENT: 48
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTIME HOURS OPERATING: 0
ESTIMATED Ldn: 57
ESTIMATED CNEL: 57

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

# EQUIPMENT NOISE MODEL

Project: BEACON
Date: 19-Jan-10
Scenario: South Rincon Parkway Shore Restoration
Receptor: Residences

| NOISE SOURCE (Data Source) A | NUMBER OF UNITS B | ASSUMED USE FACTOR C | MAX SOUND PRESSURE LEVEL @ 50 FT (dBA) D | DISTANCE (Feet) E | DIVERGENCE ATTENUATED NOISE LEVEL Leq (dBA) F | GROUND ATTENUATION Leq (dBA) G | ATTENUATED NOISE LEVEL Leq (dBA) H | NOISE LEVEL BELOW LOUDEST Leq (dBA) I | ADDITIVE NOISE LEVEL Leq (dBA) J |
|---|---|---|---|---|---|---|---|---|---|
| BACKHOE (1) | 0 | 0.40 | 85 | 20 | | | | | |
| COMPACTOR (1) | 0 | 0.50 | 83 | 200 | | | | | |
| CONCRETE MIXER (1) | 0 | 0.08 | 85 | 200 | | | | | |
| CONCRETE PUMP (1) | 0 | 0.08 | 82 | 200 | | | | | |
| COMPRESSORS (1) | 0 | 1.00 | 81 | 50 | | | | | |
| CRANE (1) | 0 | 0.50 | 83 | 550 | | | | | |
| DERRICK (1) | 0 | 0.73 | 88 | 50 | | | | | |
| D8 DOZER (std) (1) | 1 | 1.00 | 83 | 50 | 83.0 | -4.8 | 83.0 | 0.0 | 3 |
| D8 DOZER (enhanced enclosure, est.) | 0 | 0.50 | 82 | 225 | | | | | |
| DRILL RIG (WATER) (3) | 0 | 1.00 | 80 | 20 | | | | | |
| ELECTRIC GENERATOR (50 KW, insulated engine cover) (3) | 0 | 0.60 | 59 | 133 | | | | | |
| ELECTRIC GENERATOR (Non-insulated engine cover) (3) | 0 | 1.00 | 77 | 133 | | | | | |
| WATER PUMPING PLANT (Motors + outlet splash) (3) | 0 | 1.00 | 54 | 90 | | | | | |
| GARBAGE TRUCK (COMPACTOR) (1) | 0 | 1.00 | 90 | 50 | | | | | |
| GENERATOR (1) | 0 | 1.00 | 78 | 60 | | | | | |
| MOTOR GRADER (4) | 0 | 0.73 | 82.5 | 50 | | | | | |
| HOE EXCAVATOR (1) | 0 | 1.00 | 85 | 50 | | | | | |
| JACK HAMMERS (1) | 0 | 0.73 | 88 | 60 | | | | | |
| 966F WHEELED LOADER (std) (4) | 1 | 1.00 | 78 | 50 | 78.0 | -4.8 | 78.0 | 5.0 | 1.18 |
| 966F WHEELED LOADER (enhanced enclosure) (4) | 0 | 0.73 | 77 | 50 | | | | | |
| PAVER (1) | 0 | 0.73 | 89 | 50 | | | | | |
| PICK-UP TRUCK (1) | 0 | 0.25 | 79 | 20 | | | | | |
| PICK-UP (2.5 tn) (1) | 0 | 0.25 | 79 | 30 | | | | | |
| PICK-UP (4-W DRIVE) (1) | 0 | 0.73 | 79 | 50 | | | | | |
| PILE DRIVER (PEAK) (1) | 0 | 0.73 | 101 | 50 | | | | | |
| PNEUMATIC TOOLS (1) | 0 | 0.05 | 86 | 50 | | | | | |
| PUMP (1) | 0 | 1.00 | 76 | 90 | | | | | |
| ROLLER (1) | 0 | 0.73 | 74 | 50 | | | | | |
| SAW (1) | 0 | 0.50 | 78 | 60 | | | | | |
| SCRAPER (3) | 0 | 0.50 | 82 | 30 | | | | | |
| TUB GRINDER (estimated) | 0 | 0.73 | 85 | 50 | | | | | |
| SHEEPSFOOT ROLLER (1) | 0 | 0.73 | 78 | 50 | | | | | |
| SHREDDER (1) | 0 | 0.73 | 75 | 50 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.75 | 82 | 550 | | | | | |
| TRUCK TRACTOR (1) | 0 | 0.73 | 82 | 700 | | | | | |
| VAN (1) | 0 | 0.73 | 77 | 50 | | | | | |
| WATER TRUCK (1) | 0 | 0.25 | 88 | 250 | | | | | |
| WATER WAGON (1) | 0 | 0.73 | 83 | 50 | | | | | |

TOTAL Leq DURING NORMAL OPERATIONS (Maximum from column H + Sum of column J - 3): **84**

ASSUMED DAYTIME AMBIENT WITHOUT CONSTRUCTION: 54
ASSUMED NIGHTTIME AMBIENT: 48
NUMBER OF DAYTIME HOURS OPERATING: 10
NUMBER OF EVENING HOURS OPERATING: 0
NUMBER OF NIGHTTIME HOURS OPERATING: 0
ESTIMATED Ldn: 80
ESTIMATED CNEL: 80

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Sources:
(1) EPA (1971), Noise From Construction Equipment and Operations, EPA PB 206 717
(2) Harris, C.M. (1991), Handbook of Acoustical Measurements and Noise Control, 3rd. Ed.
(3) Actual measurements by Padre staff
(4) Quinn Company-Caterpillar distributor

Marine Vessel Noise at Sensitive Receptors

TO DETERMINE NOISE CONTOURS FOR A GIVEN NOISE LEVEL

ATTENUATION RATE: 6 dBA/DOUBLING OF DISTANCE
hoice: 3, 4.5, or 6)
NOISE LEVEL: 83.5 dBA
REFERENCE DISTANCE: 50 FEET

| NOISE CONTOUR | DISTANCE FROM SOURCE | SPECIFIC DISTANCE | NOISE LEVEL | |
|---|---|---|---|---|
| 75 | 133 | 740 | 60.1 | Arroyo Burro |
| 70 | 237 | 720 | 60.3 | Butterfly |
| 65 | 421 | 700 | 60.6 | Summerland - S.C |
| 60 | 748 | 1,600 | 53.4 | Summerland |
| 55 | 1330 | 900 | 58.4 | La Conchita |
| 50 | 2366 | 3,800 | 45.9 | Mission Canyon |

Marina Vessel Noise at Sensitive Receptor

TO DETERMINE NOISE CONTOURS FOR A GIVEN NOISE LEVEL

ATTENUATION RATE: 6 dBA/DOUBLING OF DISTANCE
hoice: 3, 4.5, or 6)
NOISE LEVEL: 83.5 dBA
REFERENCE DISTANCE: 50 FEET

| NOISE CONTOUR | DISTANCE FROM SOURCE | SPECIFIC DISTANCE | NOISE LEVEL | |
|---|---|---|---|---|
| 75 | 133 | 5,400 | 42.8 | S. Riviera Parkway |
| 70 | 237 | 720 | 60.3 | |
| 65 | 421 | 700 | 60.6 | |
| 60 | 748 | 1,600 | 53.4 | |
| 55 | 1330 | 900 | 58.4 | |
| 50 | 2366 | 3,800 | 45.9 | |

NOISE PREDICTION MODEL - CA Vehicle Noise Emission Levels

California Vehicle Noise Emission Levels (CALVENE)
Highway 101 Seacliff N/o Rt 1 (La Conchita)

| DATA | Date: | 01/19/10 |
|---|---|---|
| Enter ADT: | 130000 | |
| Enter vehicle speed: | 65 | |
| Enter % of Medium trucks: | 3.0 | |
| Enter % of Heavy trucks: | 7.0 | |
| Enter % of Evening Traffic - | 18 | |
| (default=18%) Autos: | 10 | |
| Medium Trucks: | 4 | |
| Heavy Trucks: | 4 | |
| Enter % of Nighttime Traffic - | 15 | |
| (default=15%) Autos: | 9 | |
| Medium Trucks: | 3 | |
| Heavy Trucks: | 3 | |
| For sustained grades only (>1 mile), enter % road gradient: | 0 | |
| Enter distance from site to centerline of road, feet: | 180 | |

ESULTS WITHOUT BARRIER EFFECTS

| | | Hard Sites |
|---|---|---|
| Noise Level at site - Ldn, dBA: | 75.3 | 78.1 |
| CNEL, dBA: | 75.7 | 78.5 |
| For Ground-Level Observers Distance To Contour From Centerline, feet (4.5 dB/2x) - | Ldn | CNEL |
| 75 dBA: | 188 | 200 |
| 70 dBA: | 406 | 430 |
| 65 dBA: | 874 | 927 |
| 60 dBA: | 1882 | 1997 |
| 55 dBA: | 4055 | 4302 |
| 50 dBA: | 8736 | 9268 |

NOISE PREDICTION MODEL - CA Vehicle Noise Emission Levels

| | HOURS | VEHICLES PER HOUR | | | HOURLY Leq | | | |
|---|---|---|---|---|---|---|---|---|
| | | Autos | Medium Trucks | eavy Trucks | Autos | edium Trucks | eavy Trucks | SUMMED Leq |
| Daytime | 7 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 8 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 9 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 10 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 11 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 12 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 1 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 2 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 3 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 4 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 5 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| | 6 | 7897.5 | 302.3 | 705.3 | 81.1 | 73.1 | 80.3 | 84.1 |
| Evening | 7 | 3900.0 | 52.0 | 121.3 | 78.0 | 65.5 | 72.6 | 79.3 |
| | 8 | 3900.0 | 52.0 | 121.3 | 78.0 | 65.5 | 72.6 | 79.3 |
| | 9 | 3900.0 | 52.0 | 121.3 | 78.0 | 65.5 | 72.6 | 79.3 |
| Nighttime | 10 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 11 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 12 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 1 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 2 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 3 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 4 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 5 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | 6 | 1170.0 | 13.0 | 30.3 | 72.8 | 59.4 | 66.6 | 73.9 |
| | | | | | | | Ldn: | 83.6 |
| | | | | | | | CNEL: | 84.0 |

NOISE PREDICTION MODEL - CA Vehicle Noise Emission Levels

California Vehicle Noise Emission Levels (CALVENE)
Highway 101 with Maximum Trips Sediment Processing

| DATA | Date: | 01/20/10 |
|---|---|---|
| Enter ADT: | 130120 | |
| Enter vehicle speed: | 65 | |
| Enter % of Medium trucks: | 3.0 | |
| Enter % of Heavy trucks: | 7.0 | |
| Enter % of Evening Traffic - | 18 | |
| (default=18%) Autos: | 10 | |
| Medium Trucks: | 4 | |
| Heavy Trucks: | 4 | |
| Enter % of Nighttime Traffic - | 15 | |
| (default=15%) Autos: | 9 | |
| Medium Trucks: | 3 | |
| Heavy Trucks: | 3 | |
| For sustained grades only (>1 mile), | | |
| enter % road gradient: | 0 | |
| Enter distance from site to | | |
| centerline of road, feet: | 180 | |

ESULTS WITHOUT BARRIER EFFECTS

| Noise Level at site - | | Hard Sites |
|---|---|---|
| Ldn, dBA: | 75.3 | 78.1 |
| CNEL, dBA: | 75.7 | 78.5 |
| For Ground-Level Observers | | |
| Distance To Contour From | Ldn | CNEL |
| Centerline, feet (4.5 dB/2x) - | | |
| 75 dBA: | 188 | 200 |
| 70 dBA: | 406 | 430 |
| 65 dBA: | 874 | 927 |
| 60 dBA: | 1883 | 1998 |
| 55 dBA: | 4058 | 4304 |
| 50 dBA: | 8742 | 9274 |

# Traffic and Vehicle Data Systems Unit

2008 All Traffic Volumes on CSHS

Route 1 View

## [Files]

The files containing traffic volumes (also known as counts) on California state highways are available for downloading. These files can be imported into spreadsheets or data bases for viewing and analysis.

## [Route Number]

All California state highways are listed in this booklet in order of Legislative Route number.

## [Annual Average Daily Traffic (Annual ADT)]

Annual average daily traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Very few locations in California are actually counted continuously. Traffic Counting is generally performed by electronic counting instruments moved from location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates. planning and designing highways and other purposes.

## [Peak Hour]

Included is an estimate of the "peak hour" traffic at all points on the state highway system. This value is useful to traffic engineers in estimating the amount of congestion experienced, and shows how near to capacity the highway is operating. Unless otherwise indicated, peak hour values indicate the volume in both directions.

A few hours each year are higher than the "peak hour", but not many. In urban and suburban areas, the peak hour normally occurs every weekday, and 200 or more hours will all be about the same. On roads with large seasonal fluctuations in traffic, the peak hour is the four near the maximum for the year but excluding a few (30 to 50 hours) that are exceedingly high and are not typical of the frequency of the high hours occurring during the season.

## [Traffic Profile]

These files list 2008 taffic volumes for all count locations on the California state highway system. Peak hours, peak month ADTs and annual ADTs are shown at each count location. Significant volume changes (breakpoints)in the traffic profile along each route are counted and identified by name and milepost value. In addition to the profile breakpoints, these files list county lines and well-known landmarks to aid in orientation. All traffic volume figures listed include traffic in both directions unless otherwise indicated.

## [Milepost]

Each profile breakpoint is identified by the milepost value corresponding to that point on the highway. The milepost values increase from the beginning of a route within a count to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the **general direction** the route follows within the state.

The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

## [Peak Month ADT]

The peak month ADT is the average daily traffic for the month of heaviest traffic flow. This data is obtained because on many routes, high traffic volumes which occur during a certain season of the year are more representative of traffic conditions than the annual ADT.

## [Back and Ahead]

Back AADT, Peak Month, and Peak Hour usually represents traffic South or West of the count location. Ahead AADT, Peak Month, and Peak Hour usually represents traffic North or East of the count location. A listing of **routes with their designated direction of travel** is listed here.



101 Lindy BAADT = 64,000 AHAADT = 66,000

Diff = 10% of total traffic based on Caltrans 2007 data for 101 at VC/SB line

TO DETERMINE NOISE CONTOURS FOR A GIVEN NOISE LEVEL

ATTENUATION RATE: 6 dBA/DOUBLING OF DISTANCE
hoice: 3, 4.5, or 6)
NOISE LEVEL: 83.1 dBA
REFERENCE DISTANCE: 50 FEET

| NOISE CONTOUR | DISTANCE FROM SOURCE | SPECIFIC DISTANCE | NOISE LEVEL | |
|---|---|---|---|---|
| 75 | 127 | 600 | 61.5 | Vessel noise @ |
| 70 | 226 | 2,000 | 51.1 | Shoreline |
| 65 | 402 | 2,500 | 49.1 | |
| 60 | 714 | 5,000 | 43.1 | |
| 55 | 1270 | 7,000 | 40.2 | |
| 50 | 2259 | 10,000 | 37.1 | |

# Combining Sound Levels in Decibels — Worksheet A

The noise environment at a site is determined by combining the contributions of different noise sources. In these Guidelines, Workcharts are provided to estimate the contribution of aircraft, automobile, truck, and train noise to the total day-night average sound level (DNL) at a site. The DNL contributions from each source are expressed in decibels and entered on Worksheet A. The combined DNL from all the sources is the DNL for the site and is the value used to determine the acceptability of the noise environment.

Sound levels in decibels ARE NOT COMBINED BY SIMPLE ADDITION! The following table shows how to combine sound levels:

Table 1

| Difference in Sound Level | Add to Larger Level |
|---|---|
| 0 | 3.0 |
| 1 | 2.5 |
| 2 | 2.1 |
| 3 | 1.8 |
| 4 | 1.5 |
| 5 | 1.2 |
| 6 | 1.0 |
| 7 | 0.8 |
| 8 | 0.6 |
| 9 | 0.5 |
| 10 | 0.4 |
| 12 | 0.3 |
| 14 | 0.2 |
| 16 | 0.1 |
| greater than 16 | 0 |

Use the table by first finding the numerical difference in sound level between two levels being combined. Entering the table with this value, find the value to be added to the larger of the two levels, add this value to the larger level to determine the total. Where more than two levels are to be combined use the same procedure to combine any two levels, then use this subtotal and combine it with any other level, and so on. Fractional numerical values may be interpolated from the table; however, the final result should be rounded to the nearest whole number.

*Example 1: In performing a site evaluation, the separate DNL values for airports, road traffic, and railroads have been listed on Worksheet A as 56, 63, and 61 decibels. In order to complete the final evaluation of the site, these separate DNL values must be combined. The difference between 63 and 56 is 7; from the table you find that 0.8 should be added to 63, for a subtotal of 63.8. The difference between 63.8 and 61 is 2.8; from the table you interpolate that approximately 1.9 should be added to 63.8 for a total of 65.7 or 66 dB when rounded to whole numbers. This example shows how noise from different sources may be Acceptable, individually, at a site, but when combined, the total noise environment may exceed the Acceptable DNL limit of 65 decibels.*